

GOVERNMENT OF INDIA

DEPARTMENT OF ARCHAEOLOGY

**CENTRAL ARCHAEOLOGICAL
LIBRARY**

CALL No.	572.05	J.R.A.I.
	VoL	9

D.G.A. 79.



THE
JOURNAL
OF THE
ANTHROPOLOGICAL INSTITUTE
OF
GREAT BRITAIN AND IRELAND.



VOL. IX.

572.05
J. R. A. I.

LONDON:
PUBLISHED FOR
The Anthropological Institute of Great Britain and Ireland.
BY
TRÜBNER & CO., 57 & 59, LUDGATE HILL.
All Rights Reserved.
1880.

HARRISON AND SONS,
PRINTERS IN ORDINARY TO HER MAJESTY,
ST MARTIN'S LANE.

CENTRAL ARCHAEOLOGICAL
LIBRARY, NEW DELHI

Acc. No. 330013- 33013

Date..... 21.12.57.....

Call No. 572.95.....

S. R. D. I

CONTENTS.

	PAGE
I. Exhibition of Cranium of a Native of one of the Fiji Islands. By Prof. W. H. FLOWER, F.R.S., Vice-President	2
II. The Primitive Human Family. By C. STANILAND WAKE, Esq., M.A.I.	3
III. On an Echelle de Couleurs, published by the Société Sténo- chromique of Paris. By E. W. BRADBROOK, Esq., F.S.A., Director.. .. .	19
IV. Remarks on the Geographical Distribution of Games. By E. B. TYLOR, Esq., F.R.S., President	23
V. On some Rock Carvings found in the neighbourhood of Sydney. By Sir CHARLES NICHOLSON, Bart., LL.D. ..	31
VI. Relationships and the Names used for them among the Peoples of Madagascar, chiefly the Hovas; together with Observations upon Marriage Customs and Morals among the Malagasy. By the Rev. JAMES SIBBLE, Junior ..	35
VII. Trellech. By F. G. HILTON PRICE, Esq., F.G.S., Treasurer	51
VIII. History of the South-Western Barbarians and Chaou-Séen. Translated from the "Tseen Han Shoo," Book 95. By A. WYLIE, Esq. With an Introduction. by H. H. HOWORTH, Esq., F.S.A.	53
IX. Rag-Bushes and Kindred Observances. By M. J. WALHOUSE, Esq., F.R.A.S.	97
X. On the Osteology and Affinities of the Natives of the Anda- man Islands. By Prof. W. H. FLOWER, F.R.S., Vice- President	108
XI. Notes on some Irish Antiquities. By A. L. LEWIS, Esq., M.A.I.	137
XII. Notes on some Cornish and Irish Pre-historic Monuments. By Miss A. W. BUCKLAND	146
XIII. Gaelic Mythology. By HECTOR MACLEFAN, Esq. ..	167
XIV. The Spread of the Slaves, Part III. The Northern Serbs or Sorabians, and the Obodriti. By H. H. HOWORTH, Esq., F.S.A.	151

	PAGE
XV. On the Relations of the Indo-Chinese and Inter-Oceanic Races and Languages. By A. H. KEANE, Esq., B.A., M.A.I.	254
XVI. Notes on Analogies of Manners between the Indo-Chinese Races, and the Races of the Indian Archipelago. By Colonel YULE, C.B.	290
XVII. Notes on Fetichism. By HODDER M. WESTROPP, Esq., M.A.I.	304
XVIII. On the Kabi Dialect of Queensland. By JOHN MATHEW, Esq.	312
XIX. Palæolithic Implements from the Valley of the Brent. By WORTHINGTON G. SMITH, Esq., F.L.S.	316
XX. Portstewart and other Flint Factories in the North of Ireland. By W. J. KNOWLES, Esq.	320
XXI. On some Eskimos' Bone Implements from the East Coast of Greenland. By W. J. SOLLAS, Esq., M.A., F.G.S.	329
XXII. The Turcomans between the Caspian and Merv. By ARMINIUS VAMBÉRY, Professor of Oriental Languages, etc., University, Buda-Pesth	337
XXIII. Australian Marriage Laws. By the Rev. LOBIMER FISON	354
XXIV. Savage and Civilized Warfare. By J. A. FARREB, Esq., M.A.I.	358
XXV. Squeezes of Hamath Inscriptions. By the Rev. DUNBAR HEATH	369
XXVI. The Cagots. By D. HACK TUKE, M.D., F.R.C.P.	376
XXVII. Notes on the Jívaros and Canelos Indians. By ALFRED SIMSON, Esq., F.R.G.S.	385
XXVIII. "Kemp How," Cowlam. By J. R. MORTIMER, Esq.	394
XXIX. On the Bheel Tribes of the Vindhyan Range. By Colonel W. KINCAID, M.A.I.	397
XXX. The Ethnology of Germany, Part IV. The Saxons of Nether Saxony. By H. H. HOWORTH, Esq., F.S.A.	406
Proceedings of the Annual General Meeting	437
President's Anniversary Address	443

ANTHROPOLOGICAL MISCELLANEA.

French Anthropology. By M. GIRARD DE RIALLE.	233
Address to the Department of Anthropology of the British Association, Sheffield, August 21st, 1879. By EDWARD B. TYLOR, D.C.L., F.R.S., President Anthropological Institute	235

	PAGE
Note from Prof. PH. DE ROUGEMONT, Neuchatel	247
Extracts from the Report of the Anthropometric Committee of the British Association	345
Dr. Beddoe's Address to the Bath and Bristol Branch of the British Medical Association	351
Customs of the Australian Aborigines. By Captain W. E. ARMIT, F.L.S.	459
The Great Toe of the Annamese. By CHARLES F. TREMLETT, Esq., H. B. M. Consul, Saigon	460
The Godeffroy Museum of Hamburg	462
Notice of an interesting Pueblo Weapon. By W. J. HOFFMAN, M.D. ..	464
Wolf-reared Children. By V. BALL, M.A., of the Geological Survey of India	465

Index	475

LIST OF ILLUSTRATIONS.

PLATES.

	PAGE
I. Trellech, Monmouthshire	51
II. III. IV. Andamanese Crania	108
V. Andamanese Pelves	109
VI. Altars and Stones, to illustrate Mr. LEWIS' paper on Irish Antiquities	137
VII. Eskimos' Bone Implements	329
VIII.-XI. Diagrams illustrating the Report of the Anthropometric Committee	345
XII. Hamath Inscriptions	369
XIII. "Kemp How" Cowlam.. .. .	394

WOODCUTS.

Leathern armlet, with Hunting or Fishing implements suspended	329
Section of Bone Implement to show the method of perforation	334
Wolf-reared Boy	469



THE JOURNAL
OF THE
ANTHROPOLOGICAL INSTITUTE
OF
GREAT BRITAIN AND IRELAND.

FEBRUARY 11TH, 1879.

Prof. W. H. FLOWER, LL.D., F.R.S., *Vice-President, in the
Chair.*

The minutes of the previous meeting were read and confirmed.

The Election of Sir HENRY SUMNER MAINE, LL.D., F.R.S., as a Member was announced.

The following presents were announced and thanks were ordered to be returned to the respective donors for the same:—

FOR THE LIBRARY.

From J. PARK HARRISON, Esq.—An Explanation of the Elementary Characters of the Chinese, 1801. By Dr. Joseph Hager.

From the AUTHORS.—Notes of a Visit to Hachijō in 1878. By F. V. Dickens and Ernest Satow.

From the SOCIETY.—Proceedings of the Royal Geographical Society. Vol. I, No. 2.

From the ASSOCIATION.—Journal of the Royal Historical and Archaeological Association of Ireland. No. 35, 1878.

From the INSTITUTION.—Journal of the Royal United Service Institution. Vol. XXII, No. 98.

From the SOCIETY.—Proceedings of the Royal Society. Vol. XXVIII, No. 191.

From the SOCIETY.—Journal of the Royal Asiatic Society. Vol. XI, Part 1.

From the ACADEMY.—Atti della R. Accademia dei Lincei Vol. III, Nos. 1 and 2.

From the AUTHOR.—The Evil Eye. By M. Elie Reclus.

From the EDITOR.—Revue Scientifique, Nos. 30–32, 1879.

From the EDITOR.—"Nature" (to date).

Professor FLOWER, F.R.S., exhibited the cranium of a native of one of the Fiji Islands, affected to an extreme degree with scaphocephaly, associated with complete parietal synostosis. It was brought direct from Ovalau and presented to the Museum of the Royal College of Surgeons, by Mr. Alfred Corrie, Surgeon R.N. With the exception of the sagittal, all the sutures of the cranium that are usually open in a person somewhat below the middle age are quite free. There are several large and complex Wormian bones in the lambdoidal suture. The length of the cranium is 214 millimetres, or 8·4 inches. The frontal region is elevated, protuberant, and comparatively wide, the greatest transverse diameter of the upper part of the cranium being situated between the temporal ridges, about midway between the external orbital processes of the frontals and the stephanion. Here it attains 116 mm. From this point it gradually diminishes backwards, the width of the parietals immediately above the middle of the squamosal suture being only 112, which is the greatest diameter to be found on these bones, except just at the inferior posterior angles. This breadth, as compared to the total length, gives an index of 52·4. The asteriac width is 103, the biauricular 114, and that between the supramastoid ridges, the greatest transverse diameter of the cranium proper, is 125. The interzygomatic diameter is 133. The length of the cranial arc from the nasion to the opisthion is 430, of which the frontal occupies 135, the parietal 152, and the occipital 143. The length of the foramen magnum is 37, and that from the basion to the nasion 109. The cranium is apparently that of a male and has a considerable capacity, viz., 1620 cubic centimetres.

As is well known, the Fijians belong mainly to the Melanesian or Papuan race, but there is a considerable mixture, especially in the coast districts, of Polynesian. In the present skull the special characteristics of the race are so disguised by the deformity that it is difficult to assign its proper position, but the high orbital index (950) and the moderate width of the nose (index 50) and slight prognathism incline rather to the Polynesian type.

For figures and descriptions of similar skulls in other races, Prof. Flower referred to Dr. Barnard Davis's Memoir "On Synostotic Crania among Aboriginal Races of Man," Haarlem, 1868; to a paper "On the Scaphoid Skull of a Pole," by Dr. Koper-

nicki, in the *Journal of this Institute*, vol. vi. (1877), p. 181; and to one by Professor Turner, in the "*Natural History Review*," January, 1864, in all of which references to the previous literature of the subject are to be found.

Mr. A. L. LEWIS exhibited and described a series of photographs from Australia and a small collection of native implements.

The following papers were read:—"Customs of Australian Aborigines." By Captain WILLIAM E. ARMIT, F.L.S. "Australian Aborigines." By D. MACALLISTER, Esq. Abstracts of these communications will appear in due course.

FEBRUARY 25TH, 1879.

JOHN EVANS, Esq., D.C.L., F.R.S., *Vice-President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The following presents were announced, and thanks were ordered to be returned to the respective donors for the same:—

FOR THE LIBRARY.

From the SOCIETY.—Proceedings of the Royal Society, Vol. XXVIII, No. 192.

From the EDITOR.—*Revue Internationale des Sciences*, No. 2, 1879.

From the ACADEMY.—*Bulletin de l'Académie Impériale des Sciences de St. Petersburg*, Vol. XXV, No. 3.

From the EDITOR.—*Revue Scientifique*, Nos. 33 and 34, 1879.

From the AUTHOR.—Some Early Notices of the Indians of Ohio.
By M. F. Force.

From the EDITOR.—"Nature" (to date).

The following paper was read by the Director:—

THE PRIMITIVE HUMAN FAMILY. By C. STANILAND WAKE, Esq.,
M.A.I.

MR. MACLENNAN has remarked, in relation to the curious custom of capturing women for wives found among peoples in all parts of the world, that "in almost all cases the form of capture is the symbol of a group act, of a siege or a pitched battle, or an invasion of a house by an armed band, while in a few cases only, and these much disintegrated, it represents a capture by an individual. On the one side are the kindred of

the husband, on the other the kindred of the wife.”* What-
 ever may be the true explanation of the origin of exogamy,
 with which the custom referred to is connected, there can be no
 doubt of the truth of the statement that capture is now
 usually, although it sometimes has relation solely to the indi-
 vidual, the symbol of a group act. This may not be the
 sense intended by Mr. MacLennan, who looks upon exogamy
 and polyandry as referable to one and the same cause, and
 who regards “all the exogamous races as having originally
 been polyandrous.”† The phenomena of wife-capture prove
 conclusively, however, that the family group to which the
 woman belonged possessed, or thought themselves entitled to,
 certain rights over her, rights of which they resisted the invasion,
 whether by an individual alone or by a group of persons, or by
 an individual aided by the other members of a group. It is
 important to notice that the groups in question appear to
 consist, not of strangers to each other or to the man or woman
 more immediately concerned, but of persons bound together by
 certain ties of blood. This is shown to be so by the fact that
 the capture is atoned for by the payment to the relations of the
 woman of the marriage-price, if this has not been agreed on
 beforehand.‡ It is required, moreover, by the conclusion
 arrived at by Mr. MacLennan, that the tribes among whom the
 system of wife-capture prevails are chiefly those whose
 marriages are governed by the law of exogamy.§ By exogamy
 is meant the practice of marrying out of the tribe or group of
 kindred,|| and it is founded on a prejudice against marriage
 with kinsfolk.¶ There is some uncertainty as to the nature of
 Mr. MacLennan’s primitive group, but judging from his statement
 that “promiscuity, producing uncertainty of fatherhood, led to
 the system of kinship through the mothers only,”** we may
 suppose that it consisted of a number of persons all of whom,
 as the result of promiscuity, were related by blood. The first
 division into which he classes uncultured peoples, according to
 their marriage rules, is that where tribes are separate and all the
 members of the tribes are, or feign themselves to be, of the same
 blood.†† Mr. Morgan very properly criticises this definition,
 which he says “might answer for a description of a gens, but the
 gens is never found alone, separate from other gentes; there are

* “Studies in Ancient History,” p. 444.

† *Ibid.* p. 181.

‡ *Ibid.* pp. 54, 57.

§ *Ibid.* pp. 104, 110.

|| *Ibid.* p. 174.

¶ *Ibid.* p. 112.

** *Ibid.* p. 139.

†† *Ibid.* p. 113.

several gentes intermingled by marriage in every tribe composed of gentes,"* a fact which would seem to distinguish the primitive group of MacLennan, although consisting of consanguinei, from a gens or clan proper. Moreover, as Mr. Morgan shows, exogamy has relation to a rule or law of a gens considered as "the unit of organisation of a social system," and therefore the gens, of which, as an institution, the rules are prohibition of intermarriage in the gens and limitation of descent in the female line,† or rather the family from which it has sprung, may be regarded as the earliest social group of which we have any knowledge.

It is of the greatest importance to the discovery of the nature of the primitive human family, to understand the origin of the gens or clan. As defined by Morgan it is "a body of consanguinei descended from the same common ancestor, distinguished by a gentile name, and bound together by affinities of blood." Mr. Morgan affirms that the gens originated in three principal conceptions: "the bond of kin, a pure lineage through descent in the female line, and non-intermarriage in the gens."‡ The most essential feature is that of tracing kinship through females only, and the discovery of the origin of this custom will throw light on that of the clan institution itself, and therefore on the nature of the primitive family.

Mr. MacLennan finds the origin of kinship through females only in the uncertainty of paternity, arising from the fact that in primitive times a woman was not appropriated to a particular man for his wife, or to men of one blood as wife.§ The children, although belonging to the horde, remain attached to their mothers, and the blood tie observed between them would, as promiscuity gave place to polyandry of the ruder kind in which the husbands are strangers in blood to each other, become developed into the system of kinship through females.|| An earlier writer, Bachofen, was so much struck with certain social phenomena among the ancients, that he believed women to have, at an early period, been supreme, not only in the family but in the State. He supposed that women revolted against the primitive condition of promiscuity and established a system of marriage in which the female occupied the first place as the head of the family and as the person through whom kinship was to be traced. This movement, which had a religious origin, was followed by another, resulting from the development of the idea

* "Ancient Society," p. 512.

† *Ibid.* p. 511.

‡ *Ibid.* p. 69.

§ "Ancient History," p. 124 *et seq.*

|| *Ibid.* p. 139.

that the mother occupied a subordinate position in relation to her children, of whom the father was the true parent. Mr. MacLennan very justly objects to this theory, that if marriage was from the beginning monogamous, kinship would have been traced through fathers from the first.* He adds that: "Those signs of supremacy on the woman's part were the direct consequences (1) of marriage *not* being monogamous, or such as to permit of certainty of fatherhood, and (2) of wives not as yet living in their husbands' houses, but apart from them in the homes of their own mothers."† The meaning of this is that the phenomena referred to by Bachofen were due to the former prevalence of a system of polyandry such as still exists among the Nairs of Southern India. It is very improbable, however, that kinship through the female only could have had the origin supposed by Mr. MacLennan. According to him one cause of the supremacy of women referred to by Bachofen was the fact of wives living apart from their husbands in the homes of their own mothers. This custom must, therefore, have preceded the supremacy of woman and the tracing of kinship through females which gave rise to it. We must believe that originally women lived alone with their daughters (and their sons also until these set up a separate establishment for themselves, taking with them probably their favourite sisters, as with the Nairs at the present day),‡ there being no male head of the family. If, however, we trace our steps back in thought to the most primitive period of human existence, we shall see that such a domestic state as that here supposed cannot have been the original one. Among savages there is never that subordination of the man to the woman which we should have to assume. We cannot suppose that the primeval group of mankind consisted only of a woman and her children, and if the woman had a male companion we cannot doubt, judging from what we know of savage races, that he would be the head and chief of the group. The very notion, however, of the family group having a male as well as a female head is inconsistent with Mr. MacLennan's theory, and we must trace the origin of female kinship as a system to a different source than the polyandry to which he ascribes it.

The idea of a special relationship subsisting between a woman and her children might no doubt be originated during the period when the men of a group "in the spirit of indifference, indulged in savage promiscuity,"§ if such a condition of things ever existed, but that alone would not be sufficient to establish

* *Loc. cit.* p. 418.

† *Ibid.* p. 419.

‡ *Ibid.* p. 150.

§ *Ibid.* p. 134.

kinship through females only. It may be questioned, indeed, whether there ever was a time when the uncertainty of paternity which Mr. MacLennan's whole theory requires was so pronounced as to prevent kinship through males being acknowledged. Mr. Morgan agrees with Mr. MacLennan so far as to say that "prior to the gentile organisation, kinship through females was undoubtedly superior to kinship through males, and was doubtless the principal basis upon which the lower tribal groups were organised." He affirms truly, however, that "descent in the female line, which is all that 'kinship through females only' can possibly indicate," is only the rule of a gens, and that relationship through the father is recognised as fully as that through the mother.* I have elsewhere,† however, given reasons for believing that this statement does not go far enough, and that the earliest forms of the classificatory system of relationships, on which Mr. Morgan bases his special theory, require actual kinship, and not affinity merely, through the male quite as fully as through the female.

It is surprising that Mr. Morgan says little as to the origin of descent in the female line. He says "the gens, though a very ancient social organisation founded upon kin, does not include all the descendants of a common ancestor. It was for the reason that when the gens came in, marriage between single pairs was unknown, and descent through males could not be traced with certainty. Kindred were linked together chiefly through the bond of their maternity."‡ We have here apparently two reasons stated for the establishment of kinship through females—the absence of marriages between single pairs, and the uncertainty of paternity. Both of these conditions are found by Mr. Morgan to exist in the consanguine family groups which he supposes to have been formed when promiscuity ceased. The Polynesian peoples, among whom he finds traces of the consanguine family, have preserved the recollection of female kinship, although, according to Mr. Morgan, the gens is unknown to them.§ The classificatory system of relationships, the origin of which he traces to the consanguine family, can, however, receive a totally different interpretation, and the existence of that family itself is very doubtful. Further, the difficulty of tracing descent through males, which Mr. Morgan supposes, is the result only of the polyandrous unions his theory requires, and if they ever really existed they could supply no further explanation of the origin of female kinship than the polyandry of the Nairs. He

* "Ancient Society," p. 516.

† "Journal of the Anthropological Institute," vol. viii, pp. 144-179.

‡ "Ancient Society," p. 67.

§ *Ibid.* p. 60.

would have done better to have sought to connect it, as Mr. MacLennan does, with the special relation supposed to exist between a mother and her child.

Mr. Herbert Spencer shows how this idea may have arisen. Unlike the other writers I have referred to, he does not think that promiscuity in the relation of the sexes ever existed in an unqualified form.* He thinks, indeed, that monogamy must have preceded polygamy, although, owing to the extension of promiscuity and the birth of a larger number of children to unknown fathers than to known fathers, a habit would arise of thinking of maternal kinship rather than of paternal, and where paternity was manifest children would come to be spoken of in the same way.† Mr. Spencer adds that the habit having arisen, the resulting system of kinship in the female line would be strengthened by the practice of exogamy.‡ The defect of this explanation lies in its requiring uncertain paternity, and I shall show that the system of female kinship has not arisen from the simple association in thought of a child with its mother in preference to its father. It is, moreover, inconsistent with the fact, mentioned by Mr. Spencer himself, that where the system of female kinship now subsists, "male parentage is habitually known."§ It is true that he supposes male kinship to be disregarded, but this conclusion appears to me not to be supported by sufficient evidence.

That there may have been a short period of barbarism, in which the intercourse between the sexes was unrestrained by any law of marriage, is possible. Probably, as female chastity before marriage is even now but slightly regarded among most uncultured peoples, all sexual alliances were allowable so long as the rule as to consanguinity was not infringed, and so long as no offspring resulted from the alliance,|| where this was entered into without the consent of parents. This consent would be necessary in all cases where such alliances were formed by females for marital purposes, and the sanction required would be that of the family head, at the early period we are treating of. Judging from what we observe among modern savages, we cannot doubt that self-interest chiefly would govern the father in connection with his daughter's marriage. He would make certain requisitions as the price of his consent. Whether the marriage was to be a permanent or a terminable engagement, the father would stipulate that his daughter should continue to live

* "Principles of Sociology," vol. i, p. 662.

† *Ibid.* p. 665.

‡ *Ibid.* p. 666.

§ *Ibid.* p. 667.

|| See "Lafitau," i, p. 552; "Lahontan," ii, 144 *et seq.*

with or near him, and that her children should belong to him as the head of the family group. In this case not only would the children form part of the family to which their mother belonged, but the husband himself would become united to it and would be required to labour for the benefit of his father-in-law.

A custom still prevalent among the New Zealanders may be cited in illustration. The Reverend Richard Taylor says, "sometimes the father simply told his intended son-in-law he might come and live with his daughter; she was thenceforth considered his wife, he lived with his father-in-law and became one of his tribe or *hapu* to which his wife belonged, and in case of war was often obliged to fight against his own relatives." Mr. Taylor adds that so common is the custom of the bridegroom going to live with his wife's family, that it frequently occurs when he refuses to do so she will leave him and go back to her relatives.* When the wife left her father's house to reside with her husband, he had to purchase the privilege by giving her father and other relations handsome presents.† In this case the children belonged to their father's family, and the fact of the wife going to reside among her husband's relations meant the loss by *her* father's family of the children. The presents may therefore be supposed to represent the price given by a man for his wife's offspring to her relations; an opinion which is confirmed by reference to the marriage customs of a West African people. Mr. John Kizell, in his correspondence with Governor Columbine, respecting his negotiations with the Chiefs in the River Sherbro, says, "the young women are not allowed to have whom they like for a husband, the choice rests with the parents; if a man wishes to marry the daughter, he must bring to the value of 20 or 30 bars to the father and mother; if they like the man, and the brother likes him, then they will call all their family together and tell them 'we have a man in the house who wishes to have our daughter, it is that which makes us call the family together that they may know it.' Then the friends inquire what he has brought with him; the man tells them; they then tell him to go and bring a quantity of palm wine; when he returns they again call the family together, they all place themselves on the ground and drink the wine, and then give him his wife. In this case all the children he has by her are his, but if he gives nothing for his wife, then the children will all be taken from him and will belong to the woman's family—he will have nothing to do with them."‡

Mr. Taylor says that the ancient and most general way of

* "Te Ika a Maui," p. 357.

† *Ibid.* p. 337.

‡ "Sixth Report of the Directors of the African Institution. 1812." p. 128.

obtaining a wife among the New Zealanders was "for the gentleman to summon his friends and make a regular *taua*, or fight, to carry off the lady by force, and oftentimes with great violence."* A fight also took place if, when a girl was given in marriage, the friends of another man thought he had a greater right to her, or if she eloped with someone contrary to her father's or brother's wish. Even if all were agreeable "it was still customary for the bridegroom to go with a party and appear to take her away by force, her friends yielding her up after a feigned struggle; a few days afterwards the parents of the lady, with all her relatives, came upon the bridegroom for his pretended abduction; after much speaking and apparent anger it ended with his making a handsome present of fine mats, &c., and giving an abundant feast."† In this case the affair ended in the same manner as the African marriage already referred to, and the idea was no doubt the same in both, the giving of compensation to the parents and relations of the woman for the loss sustained by them through her offspring being removed from the family group. Probably the wide-spread custom of pretended forcible marriage was originally thus connected with the rights of the woman's relations, and may have originated in the desire to obtain for nothing what could otherwise be acquired only by a purchase fee.

What these rights are may be ascertained from the information given us by Mr. Morgan as to the privileges and obligations associated with the membership of a gens. Among them is the obligation not to marry in the gens; mutual rights of inheritance of the property of deceased members; and reciprocal obligations of help, defence, and redress of injuries. The functions and attributes of the gens, says Morgan, "gave vitality as well as individuality to the organisation and protected the personal rights of its members,"‡ who as being connected by the ties of blood relationship may be regarded as forming an enlarged family group, or rather a fraternal association based on kinship. The gens would, however, form too large a group for all social purposes, and a smaller group would be composed of those more immediately allied by blood. Thus, although theoretically the effects of a deceased person were distributed among his gentile relations, yet Morgan admits that "practically they were appropriated by the nearest of kin."§ Among the Iroquois, if a man died leaving a wife and children, his property was distributed among his gentiles in such a manner that his sisters and their

* *Op. cit.* p. 336.

† *Ibid.* p. 336.

‡ "Ancient Society," p. 71.

§ *Ibid.* pp. 75, 528.

children, and his maternal uncles, would receive the most of it, his brothers might receive a small portion. An analogous rule prevailed when a woman died. The property remained in the gens in either case,* although its division was restricted to a small number of gentiles. It could not have been otherwise where the members of the gens are numerous or widely distributed. The same principle would apply in relation to rights over children, who in a low social stage are looked upon in the light of property. Among the aborigines of America, each gens had personal names that were used by it alone, and, says Morgan, a gentile name conferred of itself gentile rights. Now, although a child was not fully christened until its birth and name had been announced to the Council of the tribe, its name was selected by its mother with the concurrence of her nearest relatives. Morgan says nothing of any right of the gens over the marriage of its members and it would seem not to have any voice in the matter. The formation of the alliance is usually left to the two individuals more immediately concerned, or to their near relations,† and the marriage price belongs to the parents and near kin of the wife. This, in the absence of the marriage price, would be the case also with the children born of her marriage, on the principle that "children are the wealth of savages."

Reference to the custom of blood-revenge confirms the view that, for certain purposes, a smaller family group than the gens is recognised by the peoples having that organisation. Mr. Morgan says that the practice of blood-revenge had "its birthplace in the gens," which was bound to avenge the murder of one of its members. He asserts further that it was "the duty of the gens of the slayer and of the slain to attempt an adjustment of the crime before proceeding to extremities."‡ It rested, however, with the gentile kindred of the slain person to decide whether a composition for the crime should be accepted, showing that they were considered the persons more immediately concerned. The crime of murder is, as Mr. Morgan says, "as old as human society, and its punishment by the revenge of kinsmen is as old as the crime itself."§ This is hardly consistent with the preceding statement that the practice of blood-revenge had its birthplace in the gens; in fact, it preceded the development of the gens and originated with the smaller family group which, as we have seen, is more immediately connected with property and children, and the marriage of its female members. Those who are liable to the obligations of the law of blood-revenge in any particular case must be identified, and, as they

* "Ancient Society," p. 530.

† See "Lafitau," ii. 564, *et seq.*

‡ *Ibid.* p. 77.

can hardly comprise all the members of the gens, we must suppose them to be restricted to the smaller group, consisting of near blood relations. Judging from what we know of the habits of the Australian aborigines in relation to the *lex talionis*, we cannot doubt that the persons subject to retaliation in any particular case are well defined.

The example of the Polynesian Islanders, who are said not to have risen to the conception of the gens, shows that before this was developed, not only was the *lex talionis* recognised, but the law of marriage and the rights of parents over their children were fully established. These are therefore not dependent on the gens, but are incidental to a simpler group of blood relations, that on which the gens itself is based. The idea of "brotherhood" is at the foundation of all these early social organisations. Mr. Morgan says, in relation to the Iroquois *phratry*, that "the phratry is a brotherhood, as the term imports, and a natural growth from the organisation into gentes. It is an organic union or association of two or more gentes of the same tribe for certain common objects. These gentes were usually such as had been formed by the segmentation of an original gens."* So also a gens forms a fraternal association, as it consists of "a body of consanguinei descended from the same common ancestor, distinguished by a gentile name and bound together by affinities of blood."† If we trace the ascent until we come to the common ancestor, we shall have a group of kinsmen who compose the simplest form of "brotherhood?" that of a parent and his or her children. Originally this would be a mother and her daughters, as when the sons formed marriage associations the daughters only and their children would be left under the parental roof. It is evident, therefore, that the primitive family cannot have originated within the gens or clan; on the contrary, the clan was based on the family or group of kinsmen, without which it could not have existed. Moreover, it by no means follows that because the common ancestor of the members of the gens or clan was a female, the primitive group of kinsmen had not a male as well as a female head. Considered as a "fraternal association" the father may have been excluded, but for the purposes of the brotherhood it was of no importance whether paternity was certain or uncertain. The result would have been the same in either case. For other than brotherhood purposes kinship to the father may have been fully recognised. The obligations of the *lex talionis*, the right to property, and the control of children in marriage, may have concerned only the

* "Ancient Society," p. 88.

† *Ibid.* p. 63.

kinsmen by the mother's side, but those on the father's side may have been equally affected by the law of marriage. That such was the case I have sought to establish elsewhere, as evidenced by the classificatory system of relationships, and that view is confirmed by various facts showing that kinship by the male side is fully recognised among savages.

I have already had occasion to refer to Mr. MacLennan's admission that if "marriage was from its beginning monogamous, kinship would certainly (human nature being as it now is) have been traced through fathers, if not indeed through fathers only, from the first."* Mr. Herbert Spencer, although apparently thinking that promiscuity in the relations of the sexes was originally extensive, yet supposes that it was accompanied by monogamic connections of a limited duration. He says that "always the state of having two wives must be preceded by the state of having one," and he looks upon the preference for the maternal kinship rather than paternal kinship as a habit, arising from the fact that the former is observed in all cases, whilst the latter is inferable only in some cases.† Mr. Spencer's admission that where the system of female kinship now subsists "male parentage is habitually known though disregarded," greatly weakens his position, the more so as we are not told why or when it is disregarded.‡ Mr. Morgan goes far towards supplying an explanation of the fact, although his theory is defective. He affirms that gentile kin were superior to other kin only because it conferred the rights and privileges of a gens, and not because no other kin was recognised. "Whether in or out of the gens, a brother was recognised as a brother, a father as a father, a son as a son, and the same term was applied in either case without discrimination between them."§ Mr. Morgan does not, however, admit of certainty of paternity, although he states that "they did not reject kinship through males because of uncertainty, but gave the benefit of the doubt to a number of persons, probable fathers being placed in the category of real fathers, probable brothers in that of real brothers, and probable sons in that of real sons."|| This explanation is plausible, but insufficient, if, as Mr. Morgan says, descent in the female line is only a rule of a gens.¶ In this case female descent cannot have existed before the gens, and recognition of kinship through the father may have subsisted prior to the formation of the gens,

* "Ancient History," p. 418.

† "Types of Sociology," 1p. 665, 669.

‡ *Ibid.* p. 667.

§ "Ancient Society," p. 516.

|| *Ibid.* p. 515.

¶ *Ibid.* p. 516.

together with that of the relationship between mother and child on which such descent is founded. This would seem to be required by the facts mentioned by Mr. Morgan in relation to the social institutions of the American aborigines. He says: "An Indian tribe is composed of several gentes developed from two or more, all the members of which are intermingled by marriage and all of them speak the same dialect. To a stranger the tribe is visible and not the gens."* Originally, therefore, the tribe consisted of two gentes, that is of the descendants from two female common ancestors, and as the gentes are not visible to a stranger we must suppose that the tribe originally represented the male head of the primitive family group to which the female common ancestors belonged. On this supposition the primitive group consisted of a male and two females, the former being the recognised representative of the group, although the descent of its members is traced through the latter. This view is quite consistent with the explanation I have elsewhere given of the classificatory system of relationships, which undoubtedly requires the full recognition for certain purposes of blood relationship through both the father and the mother.

The conclusion thus arrived at is confirmed by what we know of the opinions entertained by peoples among whom the gentile organisation is fully developed. Carver, as quoted by Sir John Lubbock, states that among the Hudson's Bay Indians children always take the name of their mother. The reason they give for this is "that as their offspring are indebted to the father for their souls, the invisible part of their essence, and to the mother for their corporeal and apparent part, it is more rational that they should be distinguished by the name of the latter, from whom they indubitably derive their being, than by that of the father, to which a doubt might arise whether they are justly entitled."† The reason given by the Hudson's Bay Indians why children are called after their mothers shows that the system of female kinship is quite consistent with the recognition of kinship through the male. No doubt the mother is regarded by savages as having a closer physical relationship to her child than their father, but it is incredible to suppose that the latter could ever be looked upon as having no closer relationship to it than a stranger in blood. If the mother has several husbands the actual paternity may not be certain; but as the father must be one of several well-ascertained individuals, the paternity is only rendered less certain, and the child may be regarded as having several fathers and claim kinship through them all. If they are sons of the same father that kinship will be with the same

* *Ibid.* p. 103.

† "Travels in Northern America," p. 378.

persons as though its mother had but one husband. Under the conditions I have supposed, however, where a woman takes as her husband a man who lives with her among her own relations, there would not be any uncertainty as to paternity, and therefore the stronger relationship supposed between mother and child must have originated in the close physical connection observed to subsist between them. This does not, however, explain the *origin* of clan relationship based on kinship through females only, which is connected with the fact of the members of a woman's clan possessing certain rights over her and her children. These rights would not be affected, even if the primitive custom of the woman continuing to live among her relations after marriage were departed from. Before this took place the system of female kinship would have become firmly established and it would be confirmed, although it could not be originated, by the idea that, as the wife may not be faithful to her husband, there is more certainty about maternity than paternity.

The fact that a man's heirs are usually his sister's children shows that consanguinity is of great importance in the eyes of uncultured peoples, and what has been advanced is quite sufficient to account for that fact without assuming the existence of a state of promiscuity in the relations between the sexes. Such a state is not consistent with the abhorrence which even savages show to the marriage of persons of near blood relationship, and it has no support at all in the observed phenomena of savage life. The *punalua* custom of the Polynesian islanders, which has its counterpart among the Todas of the Neilgherries, and traces of which perhaps may be found, on the one hand in the fraternal polyandry of the Thibetans, and on the other hand in the sororal polygamy of the North American aborigines, is neither promiscuous nor incestuous in the proper senses of these words. The possession by several brothers of wives in common, who may themselves be sisters, or by several sisters of husbands in common, who may be brothers, may, as I have elsewhere suggested, have originally been due to the feeling that marriage has a spiritual as well as a physical significance. Punalua was really an application of the idea of brotherhood to marriage, and it is not surprising that among uncultured peoples the having wives or husbands in common should be considered a high mark of friendship.

It is important to notice that among the peoples who have developed or perfected the gentile institution, a rule of which is descent in the female line, the husband is the head of the household and the wife little more than a servant,* so long as they

* See "Klemn." ii, p. 74.

continue to live together. It is true, as Lahontan states,* that the wife has the same power of divorce as the husband, but so long as she remains in his cabin she is treated by him as a drudge and a mere child-bearer. As women they have some influence in the tribe, but this is only when they have children to give them dignity. The Polynesian islanders not having risen to the conception of a gens, it is perhaps not surprising that woman is usually regarded by them as an inferior creature. Her position as a woman is, however, better than that of a wife, in which capacity she is cared for as little as among the American aborigines. Her condition is mitigated only under the influence of the Areoi institution and where she enters into the punaluan engagement. If it is true, as Mr. Morgan states, that "the Australians rank below the Polynesians, and far below the American aborigines," we cannot wonder that the position of a woman among the Australian aborigines is one of great inferiority; in fact, among them wives are considered as articles of property, and not only do they suffer great privations, but they are most barbarously treated. The last-named people practise the simplest form of obtaining wives—that of capture by cunning and personal violence, but in most of their tribes descent is in the female line and the gens or clan is developed more or less perfectly. And yet the Australian aborigines possess marriage regulations which seem formed for the express purpose of preventing the intermarriage of blood relations and which fully recognise kinship by the male line.

A modern French writer of great authority, Fustel de Coulanges, affirms that the ancient family was constituted chiefly by religion, the first institution of which was marriage. The family gives rise to the gens, and "with its elder and younger branches, its servants and dependants, formed possibly a very numerous group of persons." Such a family, says de Coulanges, "thanks to the religion which maintained its unity, thanks to its special privileges which rendered it indivisible, thanks to the laws of protection which retained its dependents, formed in time a wide-spread society, under an hereditary chief."†

This view of the primitive family possesses much truth, although it leaves out of sight one of the most essential features of the family among uncultured peoples. The same may be said in relation to the patriarchal family of Sir Henry Maine. This writer says that "the earliest tie which knitted men together in communities was consanguinity or kinship,"

* *Op. cit.*, ii, 150.

† "*La Cité Antique*" (6th Ed.), 1876, p. 133.

and that "there was no brotherhood recognised by our savage forefathers except actual consanguinity regarded as a fact."* He adds that "kinship as the tie binding communities together, tends to be regarded as the same thing with subjection to a common authority." The notions of power and consanguinity are blended; a mixture of ideas which is seen "in the subjection of the smallest group, the family to its patriarchal head.†" "This group," says Sir Henry Maine, "consists of animate and inanimate property, of wife, children, slaves, land and goods, all held together by subjection to the despotic authority of the eldest male of the eldest ascending line, the father, grandfather, or even more remote ancestor. The force which binds the group together is power. A child adopted into the patriarchal family belongs to it as perfectly as the child naturally born into it, and a child who severs his connection with it is lost to it altogether." The patriarchal family of Maine thus differs from the primitive family of de Coulanges in its binding force, which in the one case is power and in the other religion, forces which are, nevertheless, reconciled by the fact that the chief element in this religion is the ancestral idea which is at the base of the patriarchal family. This view of the nature of the ancient family would be complete if it provided for the fact, revealed by the study of primitive institutions as now exhibited among uncultured peoples, that descent was originally traced by the female line in preference to the male line. The defect thus revealed will, however, be removed if it can be shown, as I have endeavoured to do, that descent through the male is for certain purposes recognised equally with that through the female. Mr. Herbert Spencer, in his "*Principles of Sociology*," refers as follows to a suggestion made by Mr. Fiske, which contains an important truth bearing on the subject of this paper. "Postulating the general law that in proportion as organisms are complex they evolve slowly, he infers that the prolongation of infancy which accompanied development of the less intelligent primates into the more intelligent ones, implied greater duration of parental care. Children, not so soon capable of providing for themselves, had to be longer nurtured by female parents, to some extent aided by male parents, individually or jointly; and hence resulted a bond holding together parents and offspring for longer periods, and tending to initiate the family. That this has been a co-operating factor in social evolution is very probable."‡ The bond thus formed shows its influence even among the lowest savages, in the natural affection which

* "*Early History of Institutions*," pp. 64, 65.

† *Ibid.* p. 68.

‡ P. 630, *note*.

subsists between a mother and her children, when these escape the not unusual fate of infanticide. Natural affection is less operative with male parents, but there are other feelings which have relation chiefly to male children which tend to form an equally binding tie. Mr. Spencer remarks that: "To the yearnings of natural affection are added in early stages of progress, certain motives, partly personal, partly social, which help to secure the lives of children; but which, at the same time, initiate differences of *status* between children of different sexes. There is the desire to strengthen the tribe in war; there is the wish to have a future avenger on individual enemies; there is the anxiety to leave behind one who shall perform the funeral rites, and continue oblations at the grave."* These motives must have been influential from the earliest period at which mankind consisted of more than a few small and isolated groups, and, therefore, we must assume that in these groups the male element was equally as strong as the female element, if indeed they had not a male head. Mr. Spencer remarks further that those motives, "strengthening as societies passed through the early stages, gradually gave a certain authority to the claims of male children, though not to those of females."† These ideas are quite inconsistent with the notion that the family group ever consisted only of a female ancestor and her children, or that the woman was originally the head of and supreme in the family. The custom of tracing descent by the female line shows, however, that for certain purposes the woman occupied an important position, although it may, when the practice of wives going to reside among their husband's relations became established, have tended to confirm that of female infanticide, as the children would be lost to the mother's family group. One of the motives referred to by Mr. Spencer would, after the idea of special kinship through females had become established, affect more especially the persons bound together by a maternal tie. Where the gentile organisation is established, the duty of revenging private injuries is confided to the other members of the common gens. The duty of defence against the external enemy belongs, however, to the *tribe*, which here undoubtedly stands in the place of the original family group, in which both male and female kinship with their special duties was recognised, represented by its male head. This group we must suppose, therefore, had much in common with Sir Henry Maine's patriarchal family. Under the head of the oldest living male ancestor, it embraced wife or wives, children and dependants. The repugnance to marriages

* "Principles of Sociology," p. 769.

† *Ibid.* p. 771

between blood relations, which seems almost instinctive to man, would prevent such alliances between the members of the group. The male children when they reached the age of manhood would leave the paternal roof, and obtain wives from other groups, with which they would become associated on the principle of adoption, while, on the other hand, young men from other groups would take their place as the husbands of the female children. It would be during this primitive period that the idea of a special relationship subsisting between a mother and her children, on which the custom of tracing descent through the female is founded, would become formed as already mentioned. The importance attached to female kinship would be increased by the development of a fraternal feeling among the children of the same mother, a feeling which would be strengthened if, as would probably not seldom be the case, men, after some years of cohabitation with their wives, left their children solely to the mother's care.

Under the influence of these various ideas and circumstances, the custom of tracing kinship for certain purposes in the female line would be developed by the time that the habit had been formed of wives leaving their parents to reside among their husband's family. When this took place the custom would be fully established under the influence of polygamy, and the development of the gentile organisation would almost necessarily follow. The primitive idea of kinship through the father would, however, still remain in full force with the attributes which originally appertained to it, namely, the headship in the family group of the oldest male ancestor, whose authority is practically represented by the tribe, and the non-intermarriage of those thus connected.

ON AN ECHELLE DE COULEURS, published by the Société Sténochromique of Paris. By E. W. BRABROOK, F.S.A., Dir. Anthro. Inst., &c.

1. THE accurate determination of the colours of skin, hair, and eyes, is a matter of great interest to anthropologists. The classic work on the subject is that of Professor Broca, whose types of colour were adopted by the Committee of the British Association, who prepared the "Notes and Queries on Anthropology," published in 1874. He gives 20 types of colour of the eye, and 32 additional types of colour for the hair and skin.

2. Dr. Beddoe has remarked* that "even educated men

* "Notes and Queries on Anthropology," p. 8.

differ very widely as to the appreciation of colours and their nomenclature. Such a term as 'olive,' for example, is used by different observers to denote hues totally different from each other. Moreover, decided colours, such as bright red or yellow, or coal-black, are apt to attract the eye, and their frequency is likely to be over-estimated. It is therefore most desirable that information as to the colour of skin, hair, and eyes should be collected in a systematic manner, by comparing those of every individual observed with the standard tables of M. Broca. He divides the fundamental colours of the iris into 4, viz.: blue, green, grey (dull violet), and orange, and each of these again into 5 tones or shades, making 20 in all. Eyes called black may, in his opinion, correspond with the darkest shade of any of the four—most often they are of the darkest orange. Hazel eyes belong to the orange series. Brown is a term applied also, according to M. Broca, to eyes of the orange series. The colours of hair are not so simple and flat as those of skin, and therefore are more difficult of determination by the table. They are better appreciated in moderate shadow than in bright sunshine. The skin usually differs much in colour where freely exposed to sun and air, and where habitually protected by clothing."

3. The Anthropometric Committee of the British Association, desirous of obtaining observations on the colour of hair from persons who might be unable to discriminate the 32 colour-types propounded by M. Broca, prepared (after consultation with an experienced hair-dresser) a selection of ten types for hair, representing those most likely to be met with among the population of the United Kingdom.

1. Very fair, corresponds to Broca's,	23 and 47
2. Fair	52
3. Golden	40
4. Red	30
5. Red Brown	28
6. Light Brown	46
7. Brown	42 (? 28)
8. Dark Brown	27
9. Black Brown	34
10. Black	48

4. It has been found, however, in practice (as was surmised by Dr. Beddoe), that the flatness and want of life in the typical colours selected, render their identification difficult. The *Echelle de Couleurs*, prepared by the Société Sténochromique of Paris, appears to me to afford means for a scientific classification of colours, and at the same time to present two advantages over either of those at present in use in—

1°. The gloss imparted to the surface.

2°. The "twilling" impressed upon it, by which the effect of skin or hair is very accurately rendered.

The object of the publishers of this scale of colours is not exclusively anthropological, but I venture to think that anthropologists will find their labours very useful.

5. Bearing in view the immense value of every step towards universal scientific language, I would suggest that it would be very useful to identify Broca's types with the corresponding shades in the colour-scale.

6. It consists of the following 42 colours, of each of which there are about 20 shades.

1. Vermilion.	22. Violet.
2. First transition to orange.	23. First transition to purple.
3. Second transition to orange.	24. Second transition to purple.
4. Orange.	25. Purple.
5. First transition to chrome-yellow.	26. First transition to carmine.
6. Second transition to chrome-yellow.	27. Second transition to carmine.
7. Chrome-yellow.	28. Carmine.
8. First transition to olive.	29. First transition to cinnabar.
9. Second transition to olive.	30. Second transition to cinnabar.
10. Olive.	31. Neutral tint-grey.
11. First transition to meadow-green.	32. Cinnabar-grey.
12. Second transition to meadow-green.	33. Brown.
13. Meadow-green.	34. Orange-grey.
14. First transition to blue-green.	35. Yellow-grey.
15. Second transition to blue-green.	36. Yellow-green-grey.
16. Blue-green.	37. Green-grey.
17. First transition to blue.	38. Blue-green-grey.
18. Second transition to blue.	39. Blue-grey.
19. Blue.	40. Violet-grey.
20. First transition to violet.	41. Purple-grey.
21. Second transition to violet.	42. Carmine-grey.

7. It will be seen how exceedingly comprehensive this arrangement of more than 800 shades of colour is. I propose the following as a tentative identification of Broca's types with those of this series:—

Eyes.

Broca	1	..	Orange	..	4e.
"	2	..	"	..	4h.
"	3	..	Brown	..	33l.
"	4	..	Orange	..	4r.
"	5	..	"	..	4t.
"	6	..	Olive	..	10e.
"	7	..	"	..	12h.
"	8	..	Green	..	13n.
"	9	..	"	..	13p.
"	10	..	"	..	13r.
"	11	..	Blue-green	..	18e.
"	12	..	"	..	18g.
"	13	..	Blue	..	19l.
"	14	..	"	..	19p.

Broca	15	..	Blue	..	19s.
	16	..	Orange-grey	..	34e.
"	17	..	"	..	34g.
"	18	..	"	..	34k.
"	19	..	"	..	34n.
"	20	..	"	..	34s.

Hair and Skin.

Anth. Comm.	Broca				
	21	..	Brown	..	33n.
	22	..	Orange-grey	..	34o.
1, very fair	23	..	Orange	..	4t.
	24	..	Orange-grey	..	34t.
	25	..	Cinnabar-grey	..	32t.
	26	..	Brown	..	33r.
8, dark-brown	27	..	"	..	33d.
5, red-brown	28	..	Vermilion	..	3d.
	29	..	"	..	3i.
4, red	30	..	Brown	..	33m.
	31	..	Orange	..	4p.
	32	..	Cinnabar-grey	..	32n.
	33	..	Orange	..	5r.
9, black-brown	34	..	Brown	..	33c.
	35	..	"	..	33e.
	36	..	Orange-grey	..	34m.
	37	..	"	..	34i.
	38	..	Yellow-grey	..	35k.
	39	..	Orange-grey	..	34l.
3, golden	40	..	Brown	..	33p.
	41	..	Orange	..	5b.
7, brown	42	..	"	..	5e.
	43	..	"	..	4g.
	44	..	"	..	5q.
	45	..	"	..	5s.
6, light-brown	46	..	"	..	6i.
1, very fair	47	..	Yellow-grey	..	35t.
10, black	48	..	Brown	..	33a.
	49	..	"	..	33b.
	50	..	Orange-grey	..	34h.
	51	..	"	..	34p.
2, fair	52	..	"	..	34q.

8. Every one will see the extreme difficulty of making an identification between colours printed on glazed paper and others printed on a dull flat surface, and better trained eyes than my own will no doubt readily detect errors in the above scale. I have not, however, trusted wholly to my own eyes, but have sought aid of other eyes more used to the matching of colours. I put it forward merely as a commencement—something to work upon.

9. It will be observed that my identifications of eye colour extend over only 8 colours: 4, 10, 12, 13, 18, 19, 33, 34, and those of hair and skin over the same number: 3, 4, 5, 6, 32, 33, 34, 35, showing that a comparatively limited range would suffice for all practical purposes in anthropology.

MARCH 11TH, 1879.

E. B. TYLOR, Esq., F.R.S., *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The following presents were announced, and thanks were ordered to be returned to the respective donors for the same:—

FOR THE LIBRARY.

From the SOCIETY.—Proceedings of the Royal Geographical Society, Vol. I, No. 3.

From the ASSOCIATION.—Proceedings of the Geologists' Association, Vol. V, Nos. 7 and 8.

From the AUTHOR.—"Turtle-back" Celts in the Districts of Columbia. By Dr. W. J. Hoffman.

From the EDITOR.—*Revue Scientifique*, Nos. 35 and 36, 1879.

From the EDITOR.—"Nature" (to date).

The President read the following paper.

REMARKS *on the* GEOGRAPHICAL DISTRIBUTION *of* GAMES.

By EDWARD B. TYLOR, Esq., F.R.S., President.

IN a paper read last year on the Asiatic origin of the game of patolli, played among the Aztecs before the Spanish Conquest (*see* "Journal of the Anthropological Institute," November, 1878), I pointed out that the occurrence in Mexico of this game, closely allied to the Hindu pachisi, added a new proof to those long since brought forward by Humboldt, of the old Mexican civilisation having been more or less derived from Asia. In preparing a lecture on the History of Games,* I have since come upon other facts as to the geographical distribution of games, which seem to open a new line of argument as to the spread of civilisation from South-East Asia over the vast Malayo-Polynesian district as far as New Zealand, in times of some antiquity, at any rate long before the South Sea Islands became known to Europeans.

Before entering on this special argument, as games have

* Delivered at the Royal Institution, March 14, 1879; *see* "Fortnightly Review," May, 1879.

hitherto been scarcely used for the anthropological evidence they afford, it may be well to give a clear idea of the working of such a line of proof. Of course no stress can be safely laid on the appearance in different districts of games likely to arise independently, as of those which are child's play imitating serious arts like archery or building huts, or those which might naturally suggest themselves again and again, such as wrestling, or catching balls thrown from one to another. The games which have a value as proofs of connection or intercourse between the districts they are found in, must be peculiar or complex enough to bar the supposition of their having sprung up independently. On close examination, the number of radically distinct games known among mankind proves to be much smaller than might have been expected. Their examination may be much simplified by arranging in groups those which appear to be variants of one game, like the backgammon-group, described in the paper in this Journal just referred to, or the chess group, or the polo-hockey group. Between these groups again, deeper-lying connections may be made out, as where it appears that the backgammon-group is related on the one hand to all games of dice or lots, and on the other hand to the family of draught-games, in which pieces or men are moved or drawn (whence the name *draughts*) by rule on a diagram or board. It is clear that new varieties of games grow up freely from the older forms. But also it appears that when a game is once worked into perfect fitness for its place in the life of boys or men, it may last on with remarkable permanence, as when we see represented in the ancient Egyptian tombs the counting game well known to us by its Italian name *morra*, as well as the childish sport called in English "hot-cockles," where the blind-man on all fours has to guess which of the others struck him on the back. These simple amusements have held their own from thus early in the historical period, through changes which have superseded languages, dynasties, and religions. Thus, there is always a fair chance of finding in existence in modern times any of the popular games of the ancients. I have lately found that the classic Greek and Latin game of draughts, the principle of which was that of taking a man by getting him between two enemies (*see* Pollux, *Onomasticon*, ix, 98; Ovid. *Ars Amat.* iii, 358, *Trist.* ii, 478), has not disappeared from the world. It is still in vogue in Egypt, much as it may have come with Alexander to Alexandria, and is known elsewhere in places where the Arabs have carried it (Lane, "Modern Egyptians," vol. ii, p. 59; Burton "First Footsteps in East Africa," p. 41). This ancient classic game, which may be conveniently called by the term *latrunculi*, seems distantly related to the Chinese

wei-chi, or game of circumvention, in which the principle is to take a man by surrounding him with four enemies. It may be here pointed out, for a reason which will be seen presently, that the game we now call draughts is quite different from these ancient games. It seems to be a modern and simplified form of chess, in which the pieces are all pawns, becoming queens when they reach the enemy's line, while their mode of taking by jumping over is that of the older game of fox-and-geese.

Let us proceed to examine the history and geography of the sport of kite-flying. Though now so thoroughly naturalized in Europe, it seems not to have been known beyond three centuries, but to have come over within that time from Asia, where it has long been popular as a sport of men as well as children. European travellers in China are amused to see grown-up people walking out in the evening, string in hand, leading their kites about like pet animals, and in some parts one day in the year (the 9th of the 9th month) has been given up from ancient times to a great kite-flying festival on the hills, when the sky is full of paper birds and monsters. The Chinese skill in kite-making may be judged of, by trying the similar Japanese bird-kites, now to be bought for a few pence in London shops. The kite-flying in India, Siam, and the Malay region has been often described, and among the peculiar forms may be mentioned musical kites, lantern kites, and kites arranged to be fought by making them cut one another's strings. Somewhere in South-Eastern Asia, we may assume as the geographical centre from which the toy spread. Now it appears that before the European exploring voyages during the past century, the sport of kite-flying was already known over Polynesia, even down to New Zealand. The Rev. W. W. Gill in his "Myths and Songs from the South Pacific," p. 122, figures the Hervey Island kites of reed with bunches of leaves and feathers on the tails. They were, he says, egg-shaped, club-shaped, or bird-shaped, and as the latter were more difficult to make, they were scarce, and greatly admired by the childish old men who delighted to fly them on the hill-tops of Mangaia. The native myth was that in the shades below, the god Tane once challenged the god Rongo to a game of kite-flying, but Rongo, who had secretly provided himself with an enormous quantity of string, won the match. From this first kite-flying, mortals learnt the pastime, and the rule is that in each game the first kite that mounts the sky is sacred to Rongo and bears his name. The Society Islanders made their kites of native cloth (Ellis, "Polynesian Researches," vol. i. p. 228). The New Zealand kites of sedge and flax leaves have often been described, and a very artistic one is figured by the Rev. R. Taylor in his "New Zealand,"

p. 346; it is in bird-form and called *kahu* or hawk, from its hovering, as we call ours a kite. It is a recognised sign of peace when kites are seen flying near a village (Dieffenbach, "Travels in New Zealand," vol. ii, p. 31). We may fairly suppose that the sport had found its way from the Malay corner of Asia; and its wide diffusion among the islands, with the habit of singing mythical chants during the flying, seem to point to some considerable antiquity. It is worth notice that the Fijians, who are not mainly Polynesian either in race or language, seem to have been out of the line of intercourse. Dr. Seemann ("Viti," p. 45) says they had heard of kites by their Polynesian name of *manumanu*, or bird, but had never seen one.

Next, as to a game which we consider still more childish. Mr. A. R. Wallace ("Malay Archipelago," p. 88) being one wet day in a Dyak house in Borneo, to amuse the lads took a piece of string and showed them "cat's cradle," when to his surprise he found that they knew more about it than he did, a native boy taking it off his hand and making several new figures which quite puzzled him. In New Guinea the Motu, who are Polynesians, are also proficient at cat's cradle ("Journal of the Anthropological Institute," vol. vii. p. 483), and the position which the little art holds in New Zealand is most remarkable. The Maoris make the string into many more patterns than one, these representing to them canoes, houses, &c., and in this way they commemorate scenes in their mythology, such as Hine-nui-te-po, the goddess Night, bringing forth her progeny, and Maui fishing up the North Island from the bottom of the sea. It is said that Maui, the national hero-deity, invented cat's cradle, which is called *maui* after him (Taylor, pp. 130, 347; Dieffenbach, vol. ii, p. 32). Among the Australians Eyre ("Central Australia," vol. ii, p. 229) remarks, "string puzzles are another species of amusement with them. In these a European would be surprised to see the ingenuity they display, and the varied and singular figures which they produce. Our juvenile attempts in this way are very meagre and uninteresting compared to them." Now as to the origin of the string games among these Malays (Dayaks) and Polynesians, it is evident that they did not learn them from Europeans. And though cat's cradle is now known over all Western Europe, I find no record of it at all ancient in our part of the world. It is known in South-East Asia, and the most plausible explanation seems to be that this is its centre of origin, whence it migrated westward into Europe, and eastward and southward through Polynesia and into Australia.

It further appears from the account of Captain Cook's "Third

Voyage," vol. iii, p. 144, that the Sandwich Islanders had a game like (English) draughts, but more intricate, to judge from the number of squares; the board was 2 feet long, divided into 238 squares 14 in a row, *i.e.*, 14×17 , and it was played by moving black and white pebbles from square to square. Unfortunately, the explorers did not spend an hour in learning the game, nor did Ellis the missionary ("Polynesian Researches," vol. iv, p. 213) though he gives its name *konane*, and remarks that it is a favourite amusement with the old men, and that he has known a game begun early in the morning and hardly finished in the day. The game still exists, as is shown by a passage in Mrs. Brassey's "Voyage of the 'Sunbeam,'" chap. 16, so that by next year it may be possible to get a set of rules sent over. My own impression is that the Hawaiian game will prove to be related to the already mentioned Chinese game of *circumvention*. But it is to the present purpose to point out that, not being European draughts, it is almost certainly one of the Asiatic games, and had found its way from Asia before the time of the European explorers. The Maoris are now addicted to English draughts, which they play with great skill, but there is reason to believe that they had a native game of their own; the native term is *e'mu* (*see* Dieffenbach, vol. ii, p. 58; Shortland, "Traditions of New Zealanders," p. 158). It is worth while to give this evidence in an incomplete state, as it may call the attention of anthropologists in Polynesia to the desirableness of looking for traces of Asiatic draught games as likely to afford interesting clues to the sources of South Sea Island culture.

Whether these games were carried from Asia over the Pacific by a drift of population or a drift of civilisation, that is, if either the Polynesians themselves brought them on their migration from the Malay region, or they were conveyed by mariners in later times, when the South Sea Islands were already colonized by the present Polynesians, on either supposition it would be likely that other distinctly Asiatic ideas would have travelled over by the same routes. In fact, we may look to tracing more or less of the Polynesian culture to ideas borrowed from Asia. I will give an example of this, which has for years seemed to me of much ethnological interest. The Asiatic conception of the earth being arched over by a number of concentric heavens is found in Polynesian mythology. Now the mere idea of a flat circular earth domed over by the sky is one which arises naturally from the evidence of the senses, so that its being found as it is in all regions of the world proves nothing as to intercourse between their inhabitants. But the doctrine of successive heavenly spheres or strata is not thus suggested by the appearance of the sky, nor would it be likely even to occur to the mind of a savage

or barbarian. It was a scientific hypothesis of the ancient astronomers to account for the independent motions of the sun, moon, and five other planets, by considering them as carried round each on a transparent crystal sphere. Not to go here into the question of the connection of this theory with the early Chaldean system as seen in their seven planetary temple stages, the doctrine of the heaven-spheres comes very distinctly into view in the Pythagorean scheme of seven crystal spheres of the planets, through which we see to the eighth and outermost dark sphere carrying the fixed stars. The Sabeans reckoned nine spheres and a sphere of spheres, ten altogether. For an early stage of astronomy this theory of concentric planetary spheres is thoroughly rational, but when it passed into the speculations of astrology, and became popularised among nations ignorant of its scientific meaning, it seems to have sunk into mere mythic cosmology. Thus, when in our own time and country we hear people talk of being in the seventh heaven, without having the least idea of the original real meaning of the phrase, we may understand how the seven heavens and seven hells, and other conceptions of the same class, found their way into the religions of Asia. For my present purpose it is enough to mention that the broken-down Hinduism of the Indian Archipelago recognises both the seven heavens which are the abodes of the gods, in the highest of which dwells Diebata (Sanskrit *Devata*) and the seven hells (*sapta putala*). This seems to indicate the line along which the idea of successive domes or storeys of heaven and the underworld may have reached the Polynesians. The best account of them is given by Gill (pp. 2, 21, 153), whose drawings show ten overarching domes of blue stone, corresponding with the lands in the nether world, the innermost circle being that of the sun and moon, which come up and go down through openings, so that the sun may be up above while the moon is in the world below, and *vice versa*. In the Society Islands, Ellis (vol. iii., p. 169) describes the nine heavens or strata of clouds or light inhabited by the different orders of inferior deities, the tenth being the heaven of utter darkness, inhabited by the highest gods. Elsewhere the number of these heavens is reckoned to be seven (Waitz "Anthropologie der Naturvölker," vol. vi. p. 299). In New Zealand (Taylor, p. 114) there are ten heavens, the lowest separated from the earth by a solid transparent substance of ice or crystal, along the under side of which glide the sun and moon, while above this firmament are the reservoir of the rain, the abode of wind, of spirits, and of light, the highest and most glorious of all being the habitation of Rehua. It seems quite unlikely that such notions of successive vaults or storeys above and below the earth should have sprung up as

spontaneous fancies among the Polynesians, whereas they are quite explicable as borrowed from Asia, where ignorant priests had degraded them from astronomy to introduce them into religion. The way in which this evidence of the transmission of mythology fits with that from the transmission of games, strengthens both as proofs of the drifting of Asiatic culture into Polynesia.

DISCUSSION.

MR. HYDE CLARKE observed that he accepted the paper of the President as a most valuable contribution to the knowledge of the epoch of proto-historic culture. He had himself been making further investigations on that subject, beyond those he had communicated to the Institute. That the illustrations of the President should be common to the Old and New World was a necessary consequence of the facts. In language a great Turano-African class must be constituted, including of dead languages the Iberian of Spain, the Etruscan, Prisco-Latin, &c., of Italy, the pre-Hellenic, Dacian, Thracian, Phrygian, Lydian, Carian, Canaanite, languages of Caucasia, Akkad of Babylonian, Paleo-Indian, Egyptian; and of modern languages Basque, Ugro-Altaic, Georgian, Ude, Kolarian, Naga, and many others of India, Japanese, &c., Coptic, many African languages; the Pomo (mound-builders) and others of North America, Mexico and Peru. The mythology and culture were common to the whole class, and are not Aryan, but the Aryan mythology was based on the Turano-African. As facts were built up by such researches as those of the President, we should obtain a clearer view of the proto-historic epoch, and thereby of the pre-historic and of the historic.

MR. MONCURE CONWAY said he wished to mention, with regard to what the President had said concerning the highly artificial kite-flying of the East, that a similar elaboration appears among the Chinese of California in the matter of card-playing. The oldest American gamblers do not appear to be so devoted to the game, and it is a stipulation in contracts for service made with Chinese in San Francisco that they shall pass every evening at their card-house; any remonstrance is as vain as against a religious custom. He wished also to remark that Professor Lesley, of the University of Pennsylvania, in his work, "Man's Origin and Destiny," published by Trübner, advanced the curious theory that the game of hop-scotch is a survival from an ancient representation of initiation. The diagram would be the ground plan of the temple, and the shell is carried from point to point up to the holy of holies.

LIEUT.-COL. H. GODWIN AUSTEN: With regard to the toy models of horses made at Troy and alluded to by the last speaker, I may mention that similar toys are sold in every bazaar in India, generally made of burnt clay and painted white, and represent a horse in a curious stiff attitude, with the legs stuck straight out in front and behind. There are two other games, I may mention,

which I have noticed in India. 1st, Polo at one time was a favourite general game throughout Persia and India, but curious to say, it is now confined to only two spots wide apart; Baltistan, on the Indus, in the north-west and Munipur on the south-east, eastward of the Brahmaputra. But it was curious to find that this game, no longer played on horseback, is still retained and played like our hockey, on foot in Kistwar, a district south-east of Kashmir, where the villages turn out and play, one against the other, on a certain day of the week.* 2nd. In the Naga hills I was much struck by finding that the children played with a peg-top, spun with a string, made out of a very hard kind of wood pointed below, and one of these I still possess, I obtained at the Lahupa village of Shipvomeh.

Mr. HILTON PRICE mentioned the great antiquity of the various games of ball, and the fact that balls covered with leather, cut into four and eight pieces, sewed together with string, have been found in Egypt. Ancient Egyptians playing at ball are depicted upon the monuments of Beni-Hassan.

MARCH 25TH, 1879.

E. BURNETT TYLOR, Esq., F.R.S., *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The following presents were announced, and thanks were ordered to be returned to the respective donors for the same:—

FOR THE LIBRARY.

From the SOCIETY.—Proceedings of the Literary and Philosophical Society of Liverpool, Vol. XXXII, 1877-8.

From the ROYAL ACADEMY OF SCIENCES, Amsterdam.—Verslagen en Mededelingen der Koninklijke Akademie Van Wetenschappen, Deel XII. and XIII.; Jaarboek, do. 1877; Processen-Verbaal, 1877-8.

From the SOCIETY.—Transactions of the Anthropological Society of Russia, Vol. XXI.

From the EDITOR.—Archiv für Anthropologie, Jan., 1879.

From the INSTITUTION.—61st Annual Report of the Royal Institution of Cornwall, 1878.

* Polo was first revived in India, in the district of Cachar, which lies west of Munipur, and where many people from that valley are settled, the tea-planters taking it up and playing with them; thence it spread to Dacca and to Calcutta, where it is played several evenings in the week on the Maidan. It was then taken up by officers of cavalry and other regiments in India, and has thus reached this country.

From the EDITOR.—*Materiaux pour l'Histoire de l'Homme*, Dec., 1878.

From the ACADEMY.—*Atti della R. Accademia dei Lincei*, Vol. III., No. 3.

From the AUTHOR.—*The Ancient Commerce of India. The Classification of Languages.* By Dr. Gustav Oppert.

From the EDITOR.—*Revue Internationale des Sciences*, No. 3, 1879.

From the EDITOR.—*Revue Scientifique*, Nos. 37 and 38, 1879.

From the EDITOR.—“*Nature*” (to date).

MR. HENRY SEEBOHM read a paper entitled “Some particulars respecting the native Races of Arctic Siberia,” accompanied by an Exhibition of Ethnological objects collected in that region.

The following paper was read :—

On some ROCK CARVINGS found in the neighbourhood of SYDNEY.

By Sir CHARLES NICHOLSON, Bart., LL.D.

IN various localities along the Coast of New Holland, especially on the eastern side extending from Cape Howe to Moreton Bay, carvings are found on the surface of rocks, representing in low relief the human figure, portions of the human body, as the hand or foot; and various animals, such as the kangaroo and whale. Some carefully executed drawings of these, by my friend Colonel Vigers, have been handed to me by that gentleman, and accompany this short communication. The soft and friable sandstone which is associated with the great coal formation of Eastern Australia, presents facilities for these rude intaglios that have been taken advantage of very largely by the native artists. The spots selected for the tracing of these outlines are the sides and shelving roofs of open caves, but more generally the smooth horizontal surface of the rock itself, at points near the edge of the cliff's overhanging the sea, or forming the boundaries of the different inlets by which the coast-line is broken, in various places along its eastern face. On the rocks overhanging the harbour of Port Jackson and along the countless bays into which its waters spread; at Broken Bay, and the estuary of the Hawkesbury River, these remains are discoverable and are often only brought to light when the soil which has accumulated on the surface and the vegetable growths by which they are concealed are removed. As not only brushwood but large trees of considerable age are often found rooted

in the soil that conceals these carvings, a considerable interval must have elapsed since the period when they were executed. Those delineated in the accompanying drawings were discovered by Colonel Vigors whilst engaged in superintending the erection of a battery at Middle Head, Port Jackson. On clearing away the superficial soil and brushwood preparatory to the levelling of the rock the carvings were brought to light. Exact measurements of the various objects were then made and carefully reduced according to a given scale. In a memorandum addressed to me by the above-named able and intelligent officer, he makes the following observations: "The sandstone rock is formed into large horizontal tables and on these the outlines were cut. They were covered with several inches of vegetable mould. No. 1 is the only specimen of the human form I could discover. I look on No. 8 as interesting, as it shows the manner in which the natives began the work. Small holes were drilled or made in the rock at intervals of a few inches and were subsequently joined into one continuous line as shown in the other figures. No. 17 is upwards of 30 feet in length, and no doubt was meant to represent a whale. No. 19 is the next longest. What fish No. 21 is intended to represent it would be very difficult to determine. The kangaroo (jumping), figure 24 as well as 27, where he is at bay, are amongst the most interesting."

I have little to add to these remarks, except that I have myself seen many similar examples of these "graphiti" on the escarpments and surface of the rocks adjacent to the locality from whence the accompanying drawings were derived. Among these latter I have no doubt the Dogong and other varieties of the Phocæ are meant to be indicated by the aboriginal sculptor, as these form a very important article of food to all the native tribes living on the sea-coast. A very common form of the carving here referred to is one representing the human hand or foot. As to the age of these remains it is difficult to form any opinion. From the extent of the erosion to which those have been subjected which have been exposed to the open air, as well as from the depth of the alluvium and size of the trees by which the horizontal carvings are concealed, it is evident that a very considerable interval must have elapsed since the era of their production. The present native race can give no account of these remains, and I think it will be generally admitted that no aboriginal tribe, with whom any of the European inhabitants of Australia have been brought into contact, could have been the authors of even such rudimentary examples of artistic skill. Like other similar pre-historic carvings found on the coasts of North America and other parts of the world, they may be regarded as the very earliest examples of the efforts of particular

faces of man to give expression to the imitative faculty by way of pictorial design. In the examples now brought before the Anthropological Institute there seems to be something like a perception of the laws of proportion, for the figures for the most part leave little doubt as to the intentions of the artist with respect to the object meant to be delineated.

At whatever period, and by whoever these and similar sculptures were created, they are, I believe, the only real examples we have of genuine Archaic Australian art. On the north-west coast of Australia, Sir George Grey discovered, many years since, some caves, on the sloping roof of one of which is painted on a black ground the rude form of a human figure in red and white, clothed with a short tunic, and with the head surrounded by a sort of nimbus, like that seen in mediæval pictures of Saints. Were it not for the absence of the symbol of the Cross, the figure here referred to might be supposed to be a specimen of early Christian iconography. There are also drawings in other adjacent caves of men carrying kangaroos, and of various objects the nature of which it is not very easy to divine, but which Sir George Grey suggests as representing implements of the chase. These chromatic pictorial representations found at the north-west coast of Australia, are evidently of a wholly different character from the sculptured rocks described above. The localities where the painted figures are found are not very distant from those parts of the northern coast frequented by the Malays fishing for trepang and the pearl oyster, and holding more or less intercourse with the natives of the soil. I would venture to suggest the probability that the paintings discovered by Sir George Grey and described by him in the account of his explorations in the north-east of Australia, may be the work of some accidental visitors, Malays, or possibly shipwrecked European sailors, attributable to someone belonging to a race distinct and superior to that which, so far as observation has hitherto extended, has held exclusive possession of the vast territory of Australasia. That Europeans have occasionally been isolated or seized by the natives, and compelled to consort with them for a length of time, sufficient to obliterate nearly all the habits and associations of earlier civilised life, is well known to those acquainted with history of the various colonies of Australia. When the first settlement from Van Diemens Land was made in Victoria in 1836, an Englishman, of the name of Berkley, was discovered living with one of the tribes of the Aborigines. He had left one of the penal settlements of the colony, had associated himself with the blacks, and for some 30 years had never seen the face of a white man. In this long interval he had lost, with the exception of a

few words, the use of his native language, had dispensed with all clothing, and had conformed in every way to the habits of the race amongst whom his lot had been cast. The early habits of civilised life had, however, left a sufficient impress on his character to enable him to exercise a considerable ascendancy in the tribe to which he had attached himself. It is quite conceivable that such a man, during his enforced residence amongst savages, may have sought to preserve some of the earlier reminiscences of his life in rude pictorial representations, such as those described by Sir George Grey.

With reference to the chiseled drawings to which attention is herein more especially made, it must be admitted that they exhibit a degree of mechanical skill and a sense of pictorial effect, that could only have belonged to a race considerably in advance of any now extant on the Continent of New Holland. The existing aboriginal native of Australia presents one of the very lowest of all known types of humanity. Has there been any degradation from an earlier and somewhat higher standard? Whatever conclusion we may come to on the subject it is at all events interesting to recognise in these uncouth and infantile efforts of the savage to give permanent expression to the images that occupy his mind, the existence of a faculty and an instinct which have their highest development and influence in the most advanced stages of civilisation.

DISCUSSION.

Mr. JAMES BOXWICK made reference to other localities in which similar artistic displays were known, especially drawings made with red or yellow ochre and charcoal. A high opinion of the native ability has been entertained by several observers. Mr. Surveyor Hodgkinson saw a boy sketch with a freedom and correctness he considered superior to the work of English lads. Captain Stokes noticed many drawings on Depuch Isle, with not the slightest trace of indecency. Flinders found about one hundred and fifty designs on an island in the Gulf of Carpentaria. Peron observed fair carvings on boomerangs. The Tasmanians had at least two words to express figures drawn with charcoal. Their power of imitating novel objects has been attested by several. The first time a bullock-drag passed through a certain district of the interior, a black fellow left a remembrance of the event in a capital sketch with charcoal on the bark of a tree. Robinson, exploring the West in 1831, came upon several specimens of native art. The permanent huts of Macquarie Harbour were seen so illustrated. Elsewhere a boat, or bark catamoran, was depicted, with five persons in it.

Mr. W. L. DISTANT drew attention to a paper by Dr. Julius von Haast, recently read before the Institute, on "Rock Paintings in

New Zealand," in which there were many analogies to the interesting facts related by Sir Charles Nicholson in New South Wales. The New Zealand rock paintings were also of a red colour, red oxide of iron being employed as a pigment, and fishes or whales were also portrayed.

RELATIONSHIPS *and the NAMES used for THEM among the PEOPLES of MADAGASCAR, chiefly the HOVAS; together with OBSERVATIONS upon MARRIAGE CUSTOMS and MORALS among the MALAGASY.* By the Rev. JAMES SIBREE, Junior.

A PERUSAL of Mr. C. S. Wake's interesting paper upon "The Origin of the Classificatory System of Relationships used among Primitive Peoples" ("Journ. Anthropol. Inst.," Nov., 1878), has called my attention to several facts connected with this subject as found among the peoples of Madagascar. As some of these have not, I believe, as yet been brought into public notice, it may perhaps be of some service to note them down as a slight contribution to a fuller knowledge of the state of society among primitive races of mankind.

When a foreigner first settles down in the country and begins to study the language, he finds in many classes of words strange deficiencies as compared with English, while at the same time he finds in other groups a much greater fulness and minuteness of distinction than exists in his own or allied languages.

This remark applies fully to the names used for relationships among the Hovas, if not also to those employed by the other Malagasy tribes.

The words for "father," *ray*, and "mother," *rény*, are used with a very wide signification, and are applied not only to the actual father and mother, but also to step-father and step-mother (who are also called *raikely* and *renikely*, "little father," and "little mother"), and to uncles and aunts, with their wives and husbands; so that it is almost impossible to get to know the exact relationship people bear to one another without asking, "Is he the father who begat him?" or "Is she the mother who bore him?" (It may not be unworthy of remark here that the same word, *mitéraka*, is used both for begetting and for bearing children.) Consequently there are no single words in Malagasy corresponding to our "uncle" and "aunt;" one must say "father's brother" or "sister," or "mother's brother" or "sister," as the case may be. And so it naturally follows that there are also no single words for "nephew" or "niece;" these are all *zânaka*,

"children," and if more minutely described are distinguished as children of their father's or mother's brothers or sisters.

Ray, "father," does not seem to take the sense it has in many Semitic languages of "maker" of a thing, but it is used in a wide sense as an elder or superior; and in addressing an elderly man it is common to call him *Ikaky*, a word which, together with *Dàda*, is the more familiar and affectionate word used by children in addressing their parent; the latter word being perhaps more commonly used by sons, and the former by daughters. It is singular, however, that *rény*, "mother," does take the sense of "author" of a thing: thus *rénivàno*, a river, is literally "mother of waters;" *renitantely*, a bee, is "mother of honey;" *renivòhitra*, a capital, is "mother of towns;" and *renivòla*, capital, principal, is "mother of money." And also the four first months of the four quarters of the year are called *renivintàna*, "mother of fate," or fortune, these being the principal months. In the same manner, the word for child, *zànaka*, is used as the converse of *rény*, "mother" or "originator" of a thing. Thus, *zàna-bòla* is interest or usury, literally, "offspring of money," while *mizànaka*, is to be at interest; *zànakùzo* is a word for the pieces of wood cut from a tree, "offspring of the tree;" *zàna-tòhatra*, the rungs of a ladder, is "offspring of a ladder;" and *zàna-tsòratra*, vowels, are "offspring of writing." The words *àba* and *bàba*, *àda* and *dadàny* and *angy*, are also used for "father," while *ngàhy* is a respectful term for an elderly man or any superior.

In the same way, *rény*, "mother," or its more common and familiar form, *nény*, is also used in a wide sense as a respectful way of addressing an elderly woman. The word *éndry* is also used, almost exclusively so in some tribes, for mother, and also *ima*, and *njàry*, probably the same word as *zàry*, which means "made," "formed," "created."

There is no exact equivalent for our word "parent." The compound phrase *rai-àman-dreny*, i.e., "father together with mother," is applied to any superior, elder or patron, male or female, and is given as a title of respect by the sovereign to the people, and by the people again to the sovereign. In some of the early editions of the Malagasy Scriptures, the Fifth Commandment was wrongly translated, "*Manajà ny rai-aman-dreninao*," instead of "*Manajà ny rainao sy ny reninao*," and has accordingly, at least on one occasion, been preached from by a native whose knowledge was not equal to his zeal, as containing a command to honour the government and the great people of the country.

It is perhaps worth notice here that in the Sàkalàva dialect, a man is *johàry*, which in Hòva means chief, president, or

governor, "the lord of the creation" in fact; while "woman" is *baréra*, a word which in Hova means "to brood over," as a bird over its young.

Then the word for "child," *zanaka* or *anaka* (the latter is a more affectionate and respectful word used in direct address), is used in an equally wide sense for children actually born or begotten, for step-children, and for nephews and nieces, for which last relationship, as already remarked, there are no distinct words. The word *zanaka*, in like manner with its complements *ray* and *rény*, is used in a wide sense in addressing or speaking of a younger person. "Son" is *zanaka-làhy*, and "daughter," *zanaka-vàry*.* "Boy" is *zaza-làhy*, and "girl" *zaza-vàry*; while a girl who is an only child is called by the curious compound *ravilahy*, lit. "male-female." (It will be remembered that *lahy* and *vàry* are "male" and "female," or "masculine" and "feminine.") A child dying under two years of age is termed *ràno*, the word for "water," used also figuratively for anything soft and delicate.

A girl is in many tribes called *zaza-ampêla*, that is, "spindle-child," or simply *ampêla*; for every Malagasy woman can spin as well as weave. So that we have here a close analogy with our English word "spinster," which recalls the time when our great-grandmothers and their mothers before them could all use their spinning-wheels.

Adoption of relatives' children being very common, owing no doubt to a great extent to the somewhat large proportion of people who have no children, there are several words denoting the different relationships arising from this *fanangànan'anaka* (lit. "raising up children"), as it is termed. Thus *zaza-lara* (lit. "tall children") are children of near relatives united by adoption, so as to be treated as children of the same parents, and to inherit equally. *Zaza-momba-reny* ("children of a barren mother") are step-children who live with their mother and step-father.

To die without posterity is looked upon as a great calamity, and is termed *mati-maso*, "dead as regards the eye." And closely connected with this is another custom which must be mentioned. The Malagasy have a practice similar to the Levirate law of the Jews, viz.: that if an elder brother dies childless, his next brother must marry the widow to keep up his brother's remembrance; the children of such marriages being considered as the elder brother's heirs and descendants (*see* Deut. xxv. 5, 6.) This is called *mitondra lolôha* (*mitondra*, to carry, *lolôha*, a family under the protection of the elder son or guardian), and he who thus

* My friend Mr. Wake, in a letter to me some seven or eight years ago, wrote: "Have you ever thought of the amusing fact that while *Anak* means 'small,' in so many languages, in Hebrew the *Anakim* were sons of the *Giant*?"

preserves heirs for his elder brother, is said to *mamélo-maso*, "make to live the eye," while, as above stated, he who dies heirless, dies *mati-maso*, "dead as regards the eye."

Fara is a word for "offspring," "heir," or "progeny." "*Maràa fara aman-dimby*," i.e., "Be numerous in offspring and descendants," is a frequent marriage benediction or salutation; and *faraina* ("last life") is a word applied to the youngest child. There is also a special word for the last child when the mother is again pregnant, *ai-ana*. A foster-child is *mpiolo-nòno*, "suckling together with another."

The words *Koto* and *Kétaka* are applied to children who have had no name given them; and although meaning little more than "lad" and "lass," are often retained for a considerable time as their only names, with the prefix *Ra-*.

It may not be out of place to say something here about the words used for "tribe," "nation," and "family," among the Malagasy. For "family" the word *mpianakàry* is used, of which the word *anaka* (child) is evidently the root, but whether the terminal is the verb *avy* ("come" or "come from") is doubtful. For "tribe" there is the word *fòko*, a somewhat wide term, meaning also family, class, or clan; and frequently combined with *òlona*, people, and *firenéna*, nation. This last word, however, has not the wide meaning which our "nation" has, as it often means only a clan or tribe; and it is evidently derived from the root *rény*, mother, which fact, taken in connection with the practice of inheriting rather through the female than the male line, is not perhaps without significance. But we still need more minute inquiry among the natives of Madagascar upon all these subjects.

In the words for "brother" and "sister" there are distinctions we do not possess, namely, *rahalahy* for brother's brother, *anadahy* for sister's brother, *rahavary* for sister's sister, and *anabary* for brother's sister.

These words again are used for "cousin," for which relationship there is no single or equivalent term; and so much is the near kinship of brothers' and sisters' children recognised that, as with the words for father and mother and child, it is also difficult without close inquiry to find out what actual relationship there is between members of a family. There are however the compounds *zàna-drahalahy*, child of a man's brother; *zànak'aina* (*aina* = life) and *zànak'anabary*, child of a man's sister; *zàna-drahavary*, child of a woman's sister; *zànak'unudàhy*, child of a woman's brother.

The words "brother" and "sister" are also used widely for any person whom one meets and desires to act towards in a friendly manner, generally with the polite prefix *Ra-*, as

Ranabavy, *Ranadahy*, a form also used for Such an one, or Mr. So and so (*Rànona*), and also with the word *ankizy*, children, as *Rankizy*, and with other words as well. (This last word, *ankizy*, is also used to denote "servants," being thus somewhat analogous to the French *garçon* and to the German *kellner*.)

From the (until lately) common practices of polygamy and divorce, half-brothers and sisters are much more numerous among the Malagasy than in European nations; but there is no distinctive word for this half relationship, except that they say that such an one is *miray ray*, "of one common father" with another, or *miray tam-po*, "of one common mother," or literally, "joined from the heart." There are special words for an elder or younger brother or sister, viz., *zoky* and *zandry*, words also applied widely as "senior" and "junior" generally;* and there are also words for brother-in-law, *zaodahy*, and sister-in-law, *zaobàry*. *Zazampimihira* are a brother and sister whom the father claims as his own before divorcing the mother. *Zazasary* (lit. "image of a child") is a natural child, a bastard.

Marriage between brothers' children is exceedingly common, and is looked upon as the most proper kind of connection, as keeping property together in the same family; (the marriage of two persons nearly related to each other is called *lora-tsimifindra*, i.e., "inheritance not removing"); and there seems as a result of such marriages, none of those consequences in idiocy and mental disorder of the offspring which are frequently seen in European nations as arising from the marriages of first cousins. It is possible, however, that to this intermarrying among tribes and families is due, in part at least, the sterility so frequent in Malagasy women, although this is no doubt also largely caused by the too early marriage of young people, and the licentiousness allowed, until very lately, by public opinion among the young, and even among children.

Marriage between brothers' and sisters' children is also allowable on the performance of a slight prescribed ceremony, supposed to remove any impediment from consanguinity; but that of sisters' children, when the sisters have the same mother, is regarded with horror as incest, being emphatically *fady* or tabooed, and not allowable down to the fifth generation, that is to the great-great-great-grandchildren of such two sisters. So when a man divorces his wife, he calls her *anabavy*, sister, implying that any intercourse between them is henceforth impossible.

There are also special words for the eldest, middle, and youngest children of a family, both male and female. Thus, the

* *Saonjo mihòatra akòndro*,—i.e., "The arum exceeding the banana," is a phrase used to express preferment given to a junior brother by his senior.

eldest son is termed *Andriamatòà*, the eldest girl, *Ràmatòà*; the middle sons, *Andrianàivo* or *Ranàivo*, the middle girls, *Rairo*; the youngest son, *Rafàralàhy* (last male), and the youngest girl, *Rafàraràvy* (last female). Except the two first of these words, these are often retained as proper names, either alone, or combined with others; and the two first are frequently prefixed as a complimentary addition to the names of elderly men and women, whether they be the eldest of their brothers and sisters or not, and they are also used as a complimentary form of address to men and women generally.

Grandchildren are *àfy* or *zàfy*, a word also used widely for "descendants," and for tribal names, as *Zàfin-dràlambo*, *Zàfin' Ibrahim*, *Zàfinan'lo*, etc. *Tarànaka* is also a word nearly equivalent, and used for posterity, generations. Great-grandchildren are *zàfiàfy*, great-great-grandchildren are *zàfimàfy*, great-great-great-grandchildren are *zàfin-dohàlika*, i.e., "descendants of the knee," and great-great-great-great-grandchildren are *zàfim-pàlala*, "descendants of the sole of the foot." *Zàfindoria* is a word used for a very distant relation. *Doria* is a word denoting "everlasting," probably derived through the Arabic from a Semitic root of the same meaning.

The words for grandfather and grandmother are exactly equivalent to our own: *raibé* (*bé*, great) and *renibé*;* but there appear to be no distinctive terms for any relationships further back, all previous to grand-parents being known by the general term *ràzana*, ancestors. To all ancestors a kind of divinity is ascribed, for they are spoken of as *lisan-ko Andriamànitra*, "gone to be gods," and they are invoked in prayers immediately after the Supreme Being.

In the ceremonies of the circumcision, the parent or other person who carries the child to be circumcised, and also the circumciser, is called *rainjàza*, "father of a child;" so that he, and a woman who acts as mother, and is called *reninjàza*, are a kind of godfather and godmother.

For "father-in-law" and "mother-in-law" there is one word, *rafòzana*, but unless this is defined by the gender suffixes, the word generally means "mother-in-law," and there are several amusing proverbs in the language which warn people about the desirability of being on good terms with one's mother-in-law, speaking of it as being far more important than even agreeing with one's wife.† *Vinànto* is the word for "son-in-law" and "daughter-in-law," and is further defined by the gender suffixes.

* In *Sàkalàva*, the words for grandfather and grandmother are *dàdilàhy* and *dàdìràvy*, the latter a curious combination.

† *Ny rady no tiàna, ku ny rafòzana no malala*; "The wife is liked, but the mother-in-law is loved."

For "husband" and "wife" there is but one Malagasy word, *vàdy*, and it is not customary to add to this the masculine and feminine suffixes, *làhy* and *vàry*, the meaning being gathered from the connection. (These words are, however, often used alone, to distinguish the husband or wife.) *Vady* is also used in a wide sense for pairs or things which fit to each other. (In several tribes, by euphonic change of consonants, *vàdy* becomes *valy*; *vàly* in Hova means an answer, or anything replying to or corresponding with another.) Until the spread of Christianity in the central provinces of Madagascar introduced a higher idea of the marriage relation, the idea of *love* between husband and wife was hardly thought of among the Hovas. Marriage indeed was compared to a knot so lightly tied that it could be undone with the slightest possible touch.* There was no lack of strong affection between blood relations—parents and children, brothers and sisters, grandparents and grandchildren—but the marriage state was regarded chiefly as a matter of mutual convenience, each party carefully retaining separately his or her property. Married people never address each other by any endearing epithet, but the wife is called by the husband, *Rafòtsy* or *Ramatòà* (this, however, being confined to the first wife), while he is called by her, *Tòmpokolàhy* ("Sir" or "My lord"), or *Rainjànaka* or *Rainiànaka*, that is, "father of a child." Marriage is called *fànambadiana*, "the state of having a partner," and a wedding is *fàmpakaram-bàdy*, apparently from the root *akatra*, "ascended, got, or fetched." A widow is *mpitòndra-téna*, "one who carries oneself;" she is also called *ampèla-vàntotra* (*ampèla*, spindle; *vàntotra*, middle-sized.) An orphan is *kambòty*, and another word was also used, but now nearly obsolete, *asòrotàni-tsi-sàtry*; *Asòrotany* is the name of the fourth month, most of which is unlucky; *tsy sàtry*, is "not wished," or "not intended."

Among the Hovas, a marriage is celebrated first at the house of the bride's father, and then at that of the bridegroom's family. The young couple sit together to eat rice and other food with one spoon from the same dish. A handsome lamba is thrown round them both, and the marriage becomes legal and binding by presenting a small sum of money to the bride's parents or guardians. This is called the *vòdiòndry*, lit. "sheep's rump," and no doubt used in former times to consist of that portion of a sheep, just in the same way as the rump of every ox (*codihéna*) is the portion of the sovereign, and the *vòliakòho*, the thigh of the fowl, is the proper part to be given by children or inferiors to parents or superiors. There seems here to be something similar to the customs of the Romans, who offered

* *Ny fanambadiana tsy nafehy, fa nahandrotra*; "Marriage is not (a thing) tied fast, but tied in a bow."

this part of the sacrifice to their gods, calling it the *sacrum*, or sacred part, as well as like the provision of the Mosaic law, which ordered that the same part of the sacrificed animals should be burnt on the altar.

Among some, at least, of the Malagasy peoples, there are certain marriage customs which seem connected with the widely-extended practice of taking a wife by force from her father's family. Thus, among the Sàkalàvas, when a young man wishes to obtain a girl as his wife, his courage and suitable qualifications are tested in the following way: Placed at a certain distance from a clever caster of the spear, he is bidden to catch between his arm and side every spear thrown by the man opposite to him. If he displays fear, or fails to catch the spear, he is ignominiously rejected; but if there be no flinching, and the spears are caught, he is at once proclaimed an "accepted lover." It is said that a similar custom prevailed among the Bètsiléô,* and probably further research would reveal something like it in other Malagasy tribes. A betrothed girl is *fifombàdy*, "a bespoken or engaged wife," and it is considered quite proper that such should cohabit before they are actually married. *Mutifàhana* is a word used for breaking an engagement to marry, "a breach of promise."

Among these Sàkalàvas also, marriage between a brother and sister was not forbidden by the laws. One of the kings of Ibòina, the northern of the two great Sàkalàva kingdoms, a chieftain named Andriamàhatindy, is said to have married his youngest sister, and to have had by her six daughters. Such marriages were however, preceded by a ceremony of sprinkling the woman with consecrated water, and reciting prayers asking for her happiness and fecundity, as if there was a fear that such unnatural unions would call down upon the parties the anger of the Supreme Being.†

It should, however, be observed that such marriages were usually made because of the difficulty sometimes occurring of finding a wife of equal rank with the chief or king. There was also often a jealousy of any claimant to the supreme power arising from the brother of the chief being of course older than the chief's own children. Thus the founder of the southern Sàkalàva kingdom of Ménabé sent away his younger brother to the north, but gave him at the same time a body of soldiers. With these he followed the example of his elder brother, and before long, by the conquest of several tribes, founded the northern Sàkalàva kingdom of Ibòina. For the same reason, but with great cruelty, the persecuting queen Rànavàlona I.

* See "Antanànarivo Annual," No. ii, 1876, p. 22.

† See Guillaïn: "Documents sur l'Histoire, la Géographie, et le Commerce de la Partie Occidentale de Madagascar." Paris, 1845; p. 26.

upon her usurping the throne put to death all her husband Radàma's near relatives upon whom she could lay her hands.

Lawful marriages are termed *hény*, an imperative verb implying "ought," "should," "behoveth."

Although gross immorality is common among the Hovas, the Bétsimisàraka and other tribes, amongst whom the very idea of purity seems unknown (there being no word for virgin or maid; for *mpitòro*, which is commonly used as an equivalent for these words, means only an unmarried girl), there are some other tribes, as certain of the forest and the east coast peoples, where a higher standard of morality prevails, girls being kept scrupulously from any intercourse with the other sex until they are married, and this notwithstanding the slight use of clothing, unmarried girls merely wearing a cloth or mat round the loins, while the upper part of the body remains uncovered. But amongst other tribes, on the contrary, as the Bàra and some neighbouring races, there is a shameless and open indecency of speech and behaviour which would shock the Hovas, although they would in secret act quite as immorally. Thus there is a Hova word (*sòdrànto*, *saotra* "divorced," *ranto* "traded in") to express the leave given to a wife to have intercourse with another man during her husband's prolonged absence from home. On the other hand, there are certain ornaments worn by a wife during such absence to denote that her person is sacred. Then there are also phrases such as *miàro vântotra*, to express refusal to allow a near female relative to be taken for criminal purposes, showing, as is well known from abundant evidence, that the opposite of this was a common practice. It also used to be usual for the most open, indiscriminate and shameless licentiousness to be allowed by custom on certain occasions, such as the birth of a child in the royal family; but Radàma prohibited this owing to the urgent remonstrances of Mr. Hastie, the British Resident, who threatened to proclaim to the world what a brute the King of Madagascar was to permit such vileness to be carried on in his dominions. Radàma, whose chief desire was to be thought well of by Europeans, was so affected that he gave peremptory orders to stop such practices, and even put to death some persons of high rank who were found to have been guilty of disobedience.* Such days were called *andro-tsi-màty*, i.e., "days not dead," that is, not involving death for any offence.

A wife is sometimes called *and'jimàndry*, "the one lying beyond," close to the wall; a second wife is *vàdy kely*, "little wife;" while if there are three or more wives, the wife or wives between the first and the last are called *màsay*, a word whose

* See Ellis, "History of Madagascar," vol. i. p. 150.

meaning is not clear.* (It is curious that the wives of chiefs among the Sàkalava are termed *biby*, a word which in Hova means "animal;" but it evidently has a different meaning among other tribes, for the chiefs of the Bàra, and probably some other neighbouring people, are also called *biby*.) A present made by a husband to his first wife upon marrying a second is called *éso-pandràna*, a corruption of *iso-pandràna*, from *isotra*, "cleared, removed, taken away." The privilege (?) of having twelve wives was reserved by the Hovas to the sovereign, and Andriamàsinavàlona (who is fifteenth on the list of Hova princes, the present sovereign being thirty-sixth) is the first recorded in native accounts as having exercised this right, the names of the twelve wives being preserved. These *Roàmbinifolo vary*, or "Twelve wives," had a recognised place among the great people of the kingdom, and their advice was always asked in all matters of importance. There are still some two or three aged ladies in the palace who are the survivors of Radàma the First's wives; but their influence is now a thing of the past, for since 1828 there have been (with eighteen months' exception) only female sovereigns. Among some of the other tribes polygamy is carried to a much greater extent than with the Hovas, some chiefs having from twenty to thirty wives; and one of the Bàra kings, Ivòatra, is said to count his wives by the hundred.†

The power of divorce is legally in the husband's hands, although a wife can practically divorce herself in many cases. But in some cases the husband can so divorce his wife that she cannot marry again, and can also make certain restrictions as to children and property after she is divorced: a power expressed by the word *hàdindràno*, whose literal meaning is not very clear (*hàdy* is trench, *ràno*, water, or possibly it is *trano*, house). Among the Tanàla, if a woman of noble birth marries a commoner, he cannot divorce her, but she can divorce her husband.

The Malagasy words for polygamy and divorce are worthy of notice here from the witness they bear in themselves against some of the evils of native society. The first of these, that for polygamy, is *fàmporafésana*, from the root *ràfy*, an adversary. So invariably has the taking of more wives than one shown itself to be a fruitful cause of enmity and strife in a household, that this word, which strictly means "the making an adversary,"

* A French writer, M. Désiré Charnay, says that among the Bétsimisàraka, the sisters of the three wives of a chief are taken as his concubines until they are married: "Les sœurs de ces trois femmes appartiennent de droit à l'époux jusqu'à ce qu'elles soient mariées." ("Tour du Monde," x, liv. 247, p. 208)

† See Rev. J. Richardson's "Lights and Shadows; or, Chequered Experiences among some of the Heathen Tribes of Madagascar." Antananarivo: 1877, p. v. app.

or "the causing of strife," is the term always applied to it. The different wives of course frequently try to get advantage over each other, and to wheedle their husband out of his property; constant quarrels and jealousy are necessarily the result, and so polygamy becomes "the causing of strife," "the making an adversary."

The other word, that for divorce, is an example of the tendency in human nature to gloss over an evil by calling it a fine name. When a Malagasy wishes to divorce his wife he has no need to apply to a law tribunal, the Court of Probate, or, indeed, a court of any kind. He simply takes a piece of money, hands it over to his wife before certain members of her family, or has it sent by a confidential friend, with certain phrases including the word *misaotra*, "to thank," or "to bless," and the thing is done. The wife has no appeal, and yet this unjust and occasionally cruel act (for as already mentioned the husband can divorce her so that she cannot marry again), he calls by the fine-sounding word *fisaoram-bàdy*, which is literally "thanking a wife," thanking her in short for the past, and then dismissing her as if he were doing her a favour instead of an injustice. Money or property is occasionally given on the separation of husband and wife to prevent the woman becoming the wife of another man, except by consent of the husband. This is called *tàha*.

If a wife is divorced as to be unable to marry again, "she is often treated personally with extreme cruelty, and during the formal process of being divorced receives, first, a *black fowl*, expressive, it is supposed, of the wish of her husband that she may ever be to all others a repulsive object; second, a *walking stick*, indicating that for the future she is to have no home, but is to be an outcast on the roads; third, a small *piece of money*, signifying that she is to be dependent on what is given by others; and fourth, a piece of *white gun wadding*, to signify that she is to continue in that state until her hair is white with age." ("History of Madagascar," vol. i, p. 174.)

The Sihànaka have a curious custom with regard to widows. Upon the death of any man of position or wealth, on the day of the funeral the wife is placed in the house dressed in all her best clothes and covered with her silver ornaments, of which the Sihànaka wear a considerable quantity. There she remains until the rest of the family return home from the tomb. But as soon as they enter the house they begin to revile her with most abusive language, telling her that it is her fault that her *vintana* or fate has been stronger than that of her husband, and that she is virtually the cause of his death. They then strip her of her clothes, tearing off with violence the ornaments from

her ears and neck and arms; they give her a coarse cloth, a spoon with a broken handle, and a dish with the foot broken off, from which to eat; her hair is dishevelled, and she is covered up with a coarse mat, and under that she remains all day long and can only leave it at night; and she may not speak to anyone who goes into the house. She is not allowed to wash her face or hands, but only the tips of her fingers. She endures all this sometimes for a year, or at least for eight months; and even when that is over her time of mourning is not ended for a considerable period, for she is not allowed to go home to her own relatives until she has been first divorced by her husband's family.

Before leaving the subject of relationship names, there is a form of speech which may be mentioned which is different from anything we have in English; this is the use of the neuter or subjective verbal form, prefixing *mi* to a number of words to express mutual relationship. Thus *miàdy* are people bearing to each other the relation of husband and wife: *miànaka*, that of parent and child; *miàfy*, grandparent and grandchild; *miràhalàhy*, two brothers; *miràhavàry*, two sisters; *miànadàhy*, brother and sister; *miànakàry*, people of one family; *miraiànaka* or *mirainjànaka* (lit. "united together by children"), a word expressing the state of parents who have separated from each other, or of persons who unite their property to divide it between their children; *miàvana*, relations together.

This last word, *hàvana*, meaning strictly "relative," is also used widely and vaguely for friends and acquaintance; a "distant relative" is called *hàvan-tetèzana*, literally, "a relative (reached by) stepping" (over intermediate links). A sarcastic native proverb describing "cupboard love," says: *Havako raha misy patsa, fa raha lany ny patsa, havan-tetèzana*; i.e., "He's my relative while the *patsa* last (a minute freshwater shrimp much liked as *laoku* or accompaniment to rice); but when the *pàtsa* are eaten he's quite a distant relative." The proper word for friend is *sakaiza*, but this cannot be used between persons of the opposite sex, as it implies a paramour in such connection.

Hàvan-tsi-aina ("a relative without life") is a word used for an unkind relation; and a curious word for near relations or consanguinity is *àtin-kavana* or *àti-hàvana*, *àty* meaning "liver," or the "inside" of a thing. *Làfy*, which also means "side," is another word for relative.

It is a matter for great satisfaction that during the last few years, owing to the influence of Christianity, great changes for the better have passed over society in the central provinces of Madagascar. The marriage relation is every year being raised

in the estimation of the people; a much higher standard of morals is being formed; polygamy may be said to be at an end, and divorce is very much less frequent than it used to be; and an enlightened public opinion is gradually shaming out many of the immoral practices which formerly passed unproved.

A word or two may be said in conclusion as to caste distinctions and restrictions. There is, generally speaking, nothing like Hindoo caste in Madagascar, except in certain of the marriage restrictions which exist, and thus keep separate different ranks of society. Broadly speaking, Hova society may be described as consisting of three great divisions: the *Andrians* or nobles, the *Hovas** or commoners, and the *Andévo* or slaves.

The nobles are divided into six classes or clans, some of which are descended from different chieftains of Imérina, formerly independent sovereigns, but whose dominions were gradually absorbed by the ancestors of the present reigning family. Their descendants, however, have been allowed to retain many of the privileges of their descent, being saluted in different terms to the commoners, and having a right to construct a different kind of tomb from that of the people generally, and some of them having the distinction of carrying the scarlet umbrella, the mark of royalty. From the third rank of nobility, the *Zanatòmbo*, the sovereign can take a wife. Some of the ranks of nobles can intermarry with certain of the inferior ranks, but others cannot, and only those of the highest ranks can marry a commoner. It will be seen, therefore, that Malagasy nobility is strictly a matter of descent, and not of creation, nor has it ever been the custom to confer such privileges as an Andrian possesses upon any of a lower rank. The present Prime Minister is not an Andrian, although his family has been a privileged one, and has possessed great wealth and influence for several generations past.

The second great class, that of the *Hovas* or commoners, the mass of the free people, are subdivided into a great number of tribes and clans and families; and these, as a rule, do not intermarry with each other, but keep to their own class, and largely to their own family. The names of many of these tribes are taken from that of a famous ancestor, others again are descriptive epithets, and frequently very poetical in character. A free man cannot marry a slave except by redeeming her first; should he divorce her she continues free, much in the same way as according to the provisions of the Mosaic law in such cases. (Exod. xxi, 7, 10; Deut. xxi, 11, 14.)

The third great division of the people are the *Andévo* or

* This is a restricted use of the word, for of course all the free people, with the nobles, and the first class of slaves as well, are *Hovas*, as distinct from the other tribes inhabiting the country.

slaves. These are again divided into three classes: first, the *Zaza Hora*, that is, people, or the descendants of people, who were originally Hovas or freemen, but who were reduced to slavery for debt, or for political or other offences. Secondly, the *Andévo*, or slaves proper. These are the descendants of people belonging to tribes in other parts of the island than the central province, who were conquered by the Hovas in the desolating wars carried on in the early part of the present century, and they form the largest portion of the slave class. On the whole they are rather darker than the Hovas. And thirdly, there are the Mozambiques, or African slaves, who have been brought into the country by the Arab slave traders. These by British intervention have now been formally set free, and a large number are actually so, although, it is said, many remain with their former owners in a position not much removed practically from that which they have previously held. None of these three classes can intermarry.

There is among the Malagasy much strong family affection and tribal and clannish feeling, and one of the most dreaded evils that can befall any one is to be *ariana*, or cast off by his family or tribe so as to become an outcast. This family affection is even extended in some degree to the slaves born in the family, who are looked upon as inferior members of it, and who take pride in its prosperity. The young slave children and infants are often nursed by their owners with almost as much affection as are their own children; while the old slave men and women are called *Ikàky*, and *Inény*, "daddy," and "mammy," much in the same way as the elderly free men and women of the family.

There is also with this family feeling a great mutual politeness and a strict adherence to certain forms of expression towards each other, there being proper and distinct modes for a man to address another of superior, of equal, or of inferior rank to himself; while there are similar terms proper for a woman to address members of her own sex; and others again for women to use to men, and for men to women, and for brothers-in-law to address each other: as *rizalàhy* and *rizaréo*, *rirétsy* and *zaràry*, *ranàotra*, etc.

From the particulars here given it will be seen that Malagasy words throw much interesting light upon the manners and morals of the various tribes inhabiting Madagascar. But the subject I have taken up in this paper has as yet received but little attention, and there is doubtless much of value awaiting research and careful inquiry among the still little-known peoples in many parts of the great island. I trust that others will take up more thoroughly the investigation of the question,

and that thus much valuable information may be collected as a further contribution to our knowledge of the primitive races of mankind.

DISCUSSION.

THE PRESIDENT remarked on the interest of Mr. Sibree's details of Malagasy social relations, many of which appear to be now recorded for the first time. He suggested that *biby* might not have any ulterior meaning, but be simply a word belonging to the class of children's words, like *papa* and *mumma*; in Hindustani the same word *bibi* no doubt formed in the same childish way, signifies "lady."

MR. KEANE took the opportunity of Mr. Sibree's presence in Europe to elicit some reliable information on a few points indirectly connected with the subject of his valuable paper. He should like to ask Mr. Sibree whether during his residence in Madagascar he had seen or heard anything of any distinctly autochthonous races different from the intruding sub-Malayan people at present in possession of the island. If so, it would be of great importance to ascertain whether any resemblance could be traced between such tribes and the Negritos of the Andaman and Philippine Archipelagos, or the Akkas, Obongos, Bushmen and other dwarfish people of the African mainland. The significance of such possible affinities was obvious in connection with the disputed question of a vanished Continent (Lemuria) occupying the site of the present Indian Ocean. He would also wish to know in what relationship the Betsimisarakas of the east, the Sakalavas of the west coast, and the Hovas and Betsileo of the interior stood to each other; or whether they could be regarded as all primarily of one stock, always allowing for the admixture of Swahili, Arab, and other foreign elements amongst the Sakalavas. Lastly, he would ask Mr. Sibree whether any fresh light had lately been thrown on the question of the mutual affinities of the Malagasy and Malayan languages, a point on which Crawford and Dahle had broached such opposite views.

In reply to questions put by Mr. KEANE and the CHAIRMAN as to the existence of any aboriginal or autochthonous race in Madagascar, MR. SIBREE said he was of opinion that there was good ground to believe that such tribes did exist. There was little doubt that there was an aboriginal tribe called Vazimba, who inhabited the central province of Imérina before the arrival of the Hovas. They were said to be shorter in stature than the other races, and to have flattened and long narrow heads, and to be ignorant of the use of iron. Through the advantage which the Hovas possessed in this respect the Vazimba were overcome, and obliged to flee; but it is said that remnants of the tribe still exist in the south-west provinces. The tombs of these Vazimba remain in various parts of Imérina, and were, until very lately, objects of idolatrous reverence to the Hovas. We have also accounts of another tribe in the west of the island, called Béhosy; these people are said to live in trees. Unfortunately it happens that the western side of Madagascar is that

which is least known to Europeans, and from the half-nomade character of the various tribes inhabiting that region it is more difficult to know their customs and traditions; besides which they are exceedingly jealous of any European coming from the Hova territory, fearing that they are political agents designing to bring them under the authority of the Central Government.

With regard to the language, there was no doubt an important Arabic element in it, introduced probably many centuries ago. Thus, the days of the week and month, terms connected with divination and astrology, money and commerce, and many others, were purely Arabic words. There seemed to be hardly any Swahili words. But it has been shown by many writers that there were numerous and most important affinities with the Malayo-Polynesian languages; and the Rev. W. E. Cousins has pointed out that this Malay element is larger and more important than had been supposed, comprising all the most necessary words in any language. Mr. Sibree was, however, of opinion that there was still another element in the Malagasy tongue which had not been investigated, an element which was not Malayan, and as far at least as our knowledge at present goes, apparently not African. This was a point worthy of study, and would probably throw important light upon the ethnology of Madagascar.

APRIL 8TH, 1879.

HYDE CLARKE, Esq., F.S.A., *Vice-President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The Election of COUTTS TROTTER, Esq., of the Bengal Civil Service, as Member of the Institute, was announced.

The following presents to the Library were reported, and thanks were ordered to be returned to the respective donors for the same:—

FOR THE LIBRARY.

From the SOCIETY.—Bulletin de la Société d'Anthropologie de Paris. Tome 1 (3rd series) Nos. 3-4.

From the SOCIETY.—Proceedings of the Royal Society. Vol. XXVIII, No. 193.

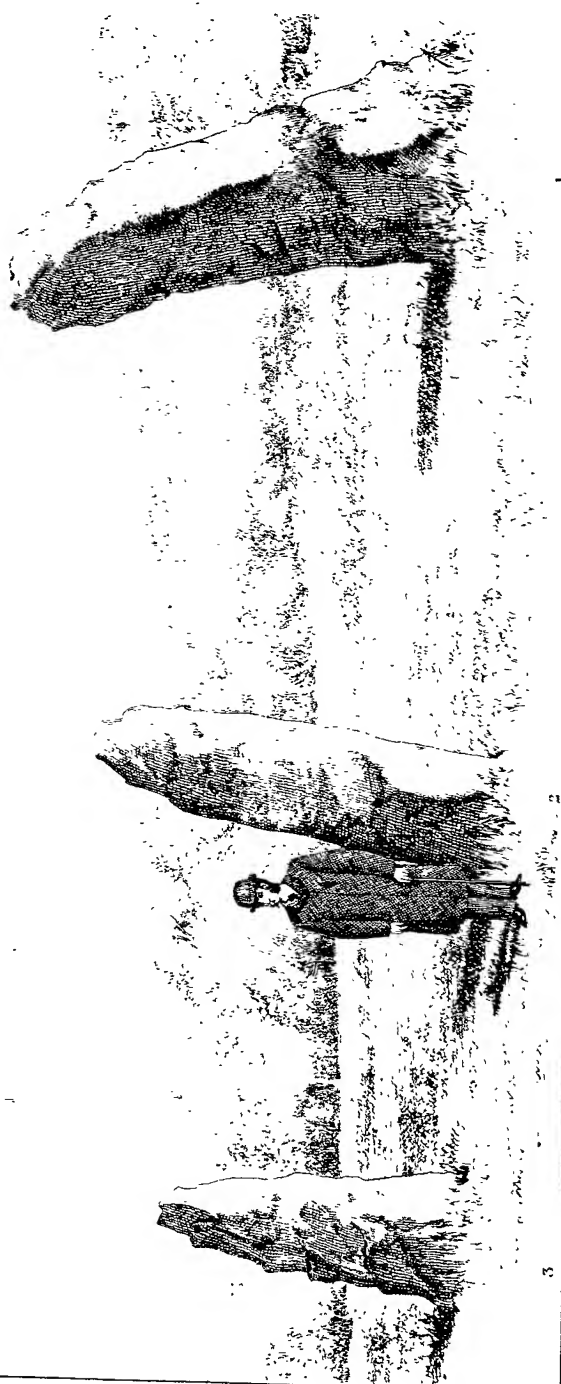
From the SOCIETY.—Proceedings of the Royal Geographical Society. Vol. I, No. 4.

From the EDITOR.—Index Medicus. Vol. I, Nos. 1-2.

From the EDITOR.—"Nature" (to date).

1845

1846



TRELLECH, MONMOUTHSHIRE.

W. D. POWLES, Esq., exhibited some antiquities from the United States of Colombia.

A paper was read by Prof. W. H. FLOWER, LL.D., F.R.S., V.P.A.I., &c., entitled "Illustrations of the Mode of Preserving the Dead in Darnley Island and in South Australia." See "Journal of the Anthropological Institute," vol. viii, pp. 389-395.

The following paper was read by the Author :—

TRELLECH. By F. G. HILTON PRICE, Esq., F.G.S.

THIS is a very ancient parish, about five miles from Monmouth, off the high-road to Shepston. It contains many vestiges of antiquity, notably three large monoliths.

The name is probably derived from Tre-lech, the town of stones, Tré-lech, or Tairllech, the three stones; they are from the pebble bed of the old red sandstone.

Dr. Griffin thus mentions them in Williams's "History of Monmouth:"

"Trillech, which in Celtic signifies three stones. Three stones, apparently Druid, remain erect in a field adjoining. Ternvail, King of Gwent, gave Trillec to Llandaff. This king is supposed to be the Farinmeal of the Saxon annals,* slain at Deorham† in 577. The donation appears to have been made under one of the three first bishops of Llandaff; and if it then bore the name, the three stones must be of much more ancient date, and might probably have been the supporters of a cromlech."

They are called Druid stones and Harold's stones by the inhabitants, and are supposed to have been erected to commemorate a great victory gained by Harold over the Celts.

These stones were found to measure :—

- No. 1. 14 feet 2 inches high by 4 feet broad at the base; this one is four-sided and tapers upward.
- „ 2. 10 feet 4 inches high by 2 feet 9 inches broad at base.
- „ 3. 8 feet 10 inches high by 2 feet 10 inches, is roughly rounded at the base; is unhewn and flat-sided.

There are a great many fragments of large stones lying about the parish, many of which appear to have been used for similar purposes.

* A.D. 577. This year Cuthwine and Ceawlin fought against the Britons, and they slew three kings, Comail, Condidan, and Ffrinmeal, at the place which is called Deorham (Derham) and took three cities from them, Gloucester and Cirencester and Bath. "Anglo-Saxon Chronicle."

† Dyrham, about six miles distant from Bath, see "Aquæ Solis," by Rev. H. M. Searth, M.A.

About 100 yards south-west of the parish church is a tumulus situated in an orchard. It is about 20 feet high, above the level of the field, and 226 feet in circumference at the base, and is encircled with a deep ditch. The mound is 43 feet in diameter on the summit, and is flat; the owner at some time or another erected a summer-house upon the top, and made a winding path to lead up to it, and planted the sides with trees. The summer-house has now been removed; the top has evidently been levelled to accommodate the structure.

This mound does not appear to have been examined, and no traditions as to its having been opened at any remote period linger in the minds of the inhabitants. At the foot of this mound is a hewn, shaped stone lying on the ground, composed of old red conglomerate. If erect, it would be 5 feet high; the upper 3 feet has rounded edges, and at the base is 18 inches square.

The popular tradition is, that a British Prince was buried here.

In the churchyard is a very large stone slab, measuring 8 feet long, 3 feet 9 inches wide at head by 34 at the foot, it is 12 inches thick, supported at the top and bottom by two other stones, 2 feet 9 inches high, and 12 inches in thickness, dolmen fashion. There appears to be a small cross at the head of the upper supporter, and four tulips within a circle on the lower, very coarsely executed.

This slab is by the inhabitants considered to be a Druidical Altar, simply, I presume, on account of its origin being lost. The church itself is of the thirteenth century.

There is a remarkable sun-dial standing in front of the school, which in a manner sets forth the history of the antiquities. It is composed of stone, and figures of the large stone, the three monoliths, tumulus and well are all carved out in stone on the respective sides.

The following is a copy of the inscription:—

Trellech Sun-dial.

I.

On the top,

Major Saxis.

In the middle,

The three Trellech stones,

Height above the surface of the ground 14, 10 and 8 feet.

At the bottom,

Hic fuit Victor Harold.

II.

The figure of the mound, or barrow of earth, raised at this place.

O Quot hic sepulti!

III.

Maxima fonte.

The chalybeate well of Trellech, formerly in great repute.

Dom Magd. probert Ostendi.

On the dial.

"Eundo hora diem depassit."

Surrounded by a fleur-de-lys.

Which confirms it was placed here by that lady, Sir George Probert bearing "parte per pale, three fleurs-des-lys," as borne by the ancient Princes of Gwent, or Monmouthshire.

HISTORY of the SOUTH-WESTERN BARBARIANS and CHAOU-SËEN.*

Translated from the "Tseen Han Shoo," Book 95, by A. WYLIE, Esq. With INTRODUCTION, by H. H. HOWORTH, Esq., F.S.A.

AMONG the oldest Chinese annals which have survived to our time are those of the Imperial dynasty of Han, which are full of matter exceedingly valuable for the history of the furthest East. Besides the annals proper, this work contains supplementary chapters on ethnography, biography, &c. Some years ago, I persuaded my friend, Mr. Wylie, whose name is a household word wherever the study of China and its borders is prosecuted, to begin a translation of the ethnographic part of the Han Annals. The first portion of his laborious work, detailing the history of the famous Hiong-nu tribes, who were probably the ancestors of the Eastern Turks, has been published in the Journal of the Institute. A serious affliction which has latterly visited my friend has interfered with his continuing his work as he intended, and I was afraid had entirely prevented him from working at it. A few days ago, however, I received a most welcome communication from him, containing a continuation of his translation. This deals with the tribes of Southern China and of Corea. Those who wish for light and easy reading, making no demands upon their thought, will hardly be tempted

* This book, with the exception of a few pages, is substantially the same—and in great part *verbatim*—as that given by Sze-ma Tseen in the "She ke."

to peruse these pages, which, like so much of the raw material of our science, are arid and uninviting in the extreme, and in consequence will fail to realise their great value and interest to all those students of ethnography who wish to carry back as far as may be the history of the human race. I am therefore tempted to add a very few words by way of explanatory preface to Mr. Wylie's translation.

Klaproth, probably the greatest ethnographer the world has seen, and who did more for Asiatic history than nearly all other students put together, complained that he had no materials for elucidating the history of the tribes of Southern China. If he had had the present translation before him, or if the Han annals had been otherwise available to him, he would no doubt, with his wonderful power of illustration, have thrown great light on a very dark subject. Unfortunately, we do not as yet possess collateral information which would enable us to make full use of this material; nor can we hope to do so until it has been more thoroughly sifted; and we can only employ here a few general phrases.

China proper did not in early times comprise the southern portion of the empire now so called. That empire was then bounded roughly by the great River Kiang; and the country to the south of this, comprising the modern governments of Yunnan, a large part of Szechuen, Kweichow, Kwangsi, Hunan, Kiangsi, Chekiang, Fukien, Kwangtung, and Hainan, was no part of it. This vast area was occupied by a number of more or less cognate tribes, whose descendants still survive in the mountains and remoter districts of most of these provinces, and especially in those of Kweichow, Kwangsi, and Kwangtung, and are known generically as Miautsi. They are closely allied with the indigenous races which peopled Central and Northern China in early days, before the invaders who introduced culture and a settled government arrived there, and they are probably identical with the raw material out of which the present Chinese race was moulded. The special interest of this instalment of the Han annals, is in that it describes the first conquest and subjugation of these southern tribes by the Chinese proper, and the extension of the empire from the River Kiang to the seaboard on the south. For many centuries after the Han period, the authority of the empire in these parts was limited and also intermittent, but it is very interesting to examine the earlier intercourse it had with this area.

A supplementary notice at the end of the description of these so-called "Southern Barbarians" gives an account of the intercourse of China with Corea during the period of the Han dynasty. This is not so new as the former and larger portion of the paper.

Like other parts of the older annals it was largely incorporated in the wonderful encyclopædia of Ma Tuanlin, and with other copious notices of Corea, it may be studied in the translation of the ethnographic part of this encyclopædia, of which a volume, admirably edited by the Marquis de St. Denis, has been published. The succeeding portions of the Han annals deal with the very interesting ethnography of the countries between China and the Caspian Sea, and contain notices of forty-five tribes. I am sure every ethnographer will echo my wish that Mr. Wylie may have his affliction so tempered that he may be able to complete the work he has so admirably begun. I may add that Mr. Wylie tells me that the name by which India is known in the Han annals is Shin-tuh, which is the Chinese corruption of Scinde or Scindia. In Ma Tuanlin and other later authorities the name is given as T'ëen-chüh.

HENRY H. HOWORTH.

TEXT.

AMONG the barbarians of the south* there were several tens of chiefs, the largest of their domains being that of Yay-lang.† To the west of that were the Me-mo tribes,‡ several tens in number, the largest domain being that of Tëen.§ To the north of Tëen were several tens of chiefs, the largest domain being that of K'ëung-too.|| All these tribes bound up their hair in a knot, cultivated the ground, and congregated in towns. Beyond these to the west, from Tung-sze eastward, and north as far as Yeh-yu,¶ all were included under the names of Suy** and Kwän-ming.†† These people plaited their hair and removed their dwellings for the convenience of pasturage, having no fixed residence. They had no chiefs, and their land might be estimated at several thousands of *le* square. North-east from Suy, there were several tens of chiefs, the largest domains being

* These were south of the ancient state of Shuh, which corresponded generally to the present province of Szechuen.

† A dependency of the ancient kingdom of Keen-wei, on the site of a portion of the present provinces of Szechuen, Yunnan and Kweichow.

‡ North of the site of the present Ta-le *foo* in Yunnan.

§ Now represented generally by the province of Yunnan.

|| This site is probably in the south-west of Szechuen province.

¶ On the site of the present prefecture of Ta-le, of which the chief city is in N. lat. $25^{\circ} 41' 24''$, E. long. $100^{\circ} 21' 50''$.

** This site is now occupied by the prefecture of Le-keang in Yunnan, the chief city of which is in N. lat. $26^{\circ} 51' 36''$, E. long. $100^{\circ} 27' 20''$.

†† This joined the southern boundary of Suy

those of Se* and Tsō-too.† North-east from Tsō there were some tens of chiefs, Yen and Mang‡ being the largest of the domains. Some of these tribes cultivated the ground, and others led a migratory life. On the west of Shuh, and north-east from Mang were several tens of chiefs, the greatest being that of Pih-ma.§ These all belonged to the Te race. All the above were outside barbarian tribes, on the west and south of Pa|| and Shuh.

At first in the time of Wei the King of Ts'oo,¶ the General Chwang Keaou was sent up the Keang** with troops, to settle the boundaries of the several tribes from Pa and Tēn-chung westward. Chwang Keaou was a descendant of Chwang,†† the King of Ts'oo. On reaching the Tēn Marsh,‡‡ he found it 300 *le* square, bordered by rich-soil level land for some thousands of *le*; the inhabitants of which he overawed by his military strength, and attached them to the kingdom of Ts'oo. When returning to report his success, he found the King of Ts'in had attacked and taken possession of the Pa and Tēn-chung regions in the kingdom of Ts'oo. The highway being thus rendered impassable, Chwang Keaou remained with his followers, and established himself as King of Tēn. Assuming the garb of the barbarians, and adopting their customs, he was accepted as their chief.

When the King of Ts'in had subdued the tribes and fixed their boundaries, he constructed the five-feet causeway,§§ and set officers over the countries.

* Se was in the kingdom of Shuh.

† Tsō was in western Shuh. *Too* means "capital."

‡ These two territories occupied the site of the present department of Mow in the north-west of Szechuen province. The departmental city is in N. lat. 31° 38', E. long. 101° 34'.

§ This was apparently on the site of the present prefecture of Paou-ning; of which the chief city is in N. lat. 31° 32' 24'', E. long. 105° 58' 30''.

|| A territory partly on the site of the present prefecture of Chung-king in Szechuen; the chief city of which is in N. lat. 29° 42' 10'', E. long. 106° 42'.

¶ An extensive territory occupying the central part of the present empire. The northern limit lay between the Yang-tsze and Yellow rivers; the south-eastern limit was in Chekeang province; and the western stretched far away indefinitely beyond the present boundary of China.

** The river known to Europeans as the Yang-tsze keang.

†† The younger brother of King Chwang has the traditional reputation of having been a robber.

‡‡ This appears to be represented now by the lake in the vicinity of Yun-nan, the provincial city. A city of the same name—Tēn-ch'e—formerly stood on the site of the present departmental city of Tsin-ning, on the border of the lake, in N. lat. 24° 47', E. long. 102° 51'.

§§ This road, which has been often described, both by native and foreign writers, extended from the river Hwae opposite the district city of Paou-ke, to within a few miles of the Hun river, near the prefectural city of Han-chung. The latest European traveller from whom we have any account of it—Baron von Richthofen, says—"The entire route is a work of tremendous engineering. . . . The hardest work consisted in cutting out long portions of the road

In little more than 10 years the Empire of Ts'in was at an end, and was succeeded by the Han, which released these countries, and opened the ancient roads through Shuh. A clandestine commerce was carried on at this time by the people of Pa and Shuh, who procured horses from Tsö, and slave boys and long-haired oxen from Pih;* and by this traffic the communities became wealthy and prosperous.

In the year B.C. 135, Kwei the King of Ta-hing made an attack on Eastern Yuë, when the people of the latter state were induced to put Ying, their King, to death, and reported the fact to the invaders. Tang Mung, the ruler of Po-yang† influenced by the military prestige of Kwei, was induced to convey the report of his prowess to Southern Yuë. While in that country, among the viands with which he was entertained, he observed *keu-fungus* soy from Shuh. Inquiring how they procured it, he was told that the route by which it arrived lay north-west, by the Tsang-ko‡ river. This river is several *le* broad and dis-embogues below the city of Pan-yu.§ On his return he went to Chang-gan|| where he made inquiries among the Shuh traders and gathered the following particulars. "It was only in Shuh that the *keu-fungus* soy was produced, but much of it was clandestinely sold to the people of Yay-lang. The Tsang-ko river was more than a hundred paces broad in that country, with water sufficient for the transit of vessels. By the judicious employment of wealth, Southern Yuë had succeeded in securing the attachment of Yay-lang. They were less successful, however, in an attempt to bring into subjection Tung-sze on the west." Furnished with these facts, Tang Mung laid the following

from solid rock, chiefly where ledges project on the verge of a river, as is frequently the case on the Helung Kiang. . . . It had been done so thoroughly from the first, that scarcely any additions had to be made in after-days. Another kind of work which generally strikes tourists like Father Martini, or Chinese travellers, is the poling up of the road on the sides of steep cliffs. . . . Extensive cliffs are frequently rounded in this way, and imagination is much struck with the perils of walking on the side of a precipice, with the foaming river below. When the timbers rot, such passages of course become obstructed, and thus the road is said to have been periodically in complete disuse. The repairs, which were chiefly made in the time of the Ming, concerned especially passages of this sort" (Yule's "Marco Polo," 2nd edition, vol. ii. page 26).

* An ancient territory, on the site of the present prefecture of Seu-chow, the chief city of which is in N. lat. $28^{\circ} 38' 24''$, E. long. $104^{\circ} 45' 38''$.

† There is still a district and lake of this name in the prefecture of Jaou-chow. The district city is in N. lat. $28^{\circ} 57' 20''$, E. long. $116^{\circ} 44' 8''$.

‡ This is now known to Europeans at Canton as the West river. Rising in Kweichow province, it traverses those of Kwangse and Kwangtung.

§ One of the two district cities comprised within the walls of Canton, N. lat. $23^{\circ} 8' 9''$, E. long. $113^{\circ} 16' 30''$.

|| The present Se-gan, the provincial city of Shense. N. lat. $34^{\circ} 16' 45''$, E. long. $108^{\circ} 57' 45''$.

memorial before the Imperial Throne :—"The King of Southern Yüe lives in a yellow mansion and carries a left-hand standard. His territory is more than 10,000 *le* from east to west; and while nominally a vassal of the empire, he is in fact an independent Sovereign. Now the water communication with this country, either by Chang-sha* or Yu-chang,† is beset by many difficulties of a formidable character. I have heard that Yay-lang has excellent troops, of which 100,000 might be made available. These might be floated down the Tsang-ko river in boats, and coming suddenly upon the Yuë, they would be taken by surprise and might thus be brought under control. Verily with the strength of the Han, and the wealth of Pa and Shuh, it would be extremely easy to pass along the Yay-lang route, and establish Imperial officers on the way." This proposal was favourably received by the Emperor; and Tang Mung was forthwith appointed Secretary and General, with the command of 1,000 troops and more than 10,000 men with the baggage train, to carry out the enterprise.

Advancing by the Tsö barrier of Pa, he had an interview with the Marquis of Yay-lang, and was received with much favour by that dignitary. Having delivered the Imperial edict, accompanied by munificent gifts, he availed himself of his powers to enter into a treaty for the establishment of Imperial officers, and invested the son of the marquis as governor of the country. The petty chiefs adjoining Yay-lang all cast covetous eyes on the presents of silk from the Han, which they had hitherto looked upon as unobtainable, in view of the dangers of the road to the Han domain. They were therefore ready to listen to Tang Mung's proposal, and freely entered into compacts with him. Returning to report progress, he proposed that the Këen-wei‡ region should send Pa and Shuh troops to make a road from the Pih road to the Tsang-ko river. Sze-ma Seang-joo,§ a native of Shuh, suggested that K'eung and Tsö of the Western Barbarians might be formed into a region of the empire, and for the accomplishment of this project he was appointed Secretary and General, and left, bearing an edict exactly similar to that sent to the Southern tribes; the result being, that a Protector

* Now the provincial city of Hoonan. N. lat. 28° 12', E. long. 112° 46' 57".

† A territory occupying the site of the present prefectures of Nan-chang and Lin-keang. The provincial city of Nan-chang is in N. lat. 28° 37' 12", E. long. 115° 48' 17". The prefectural city of Lin-keang is in N. lat. 27° 57' 36", E. long. 115° 27'.

‡ A territory occupying the site of part of the prefecture of Kea-ting, and the district of Chang-ning in Seu-chow prefecture. There is still a district in Kea-ting bearing this name. The city is in N. lat. 29° 9', E. long. 104° 8'.

§ A short notice of this scholar is given in Mayers' "Chinese Reader's Manual," p. 200, *seq.*

General was appointed, and more than ten districts were attached to Shuh. At this time the four regions of Pa and Shuh had free communication with the barbarians on the south and west, and by the interchange of commodities, were able mutually to supply their respective wants.

A few years later, communication by the roads was interrupted; the troops were disbanded and starving; supplies were cut off; and corpses in untold numbers lay rotting in the sun and floating in the streams. The barbarians on the south-west several times rebelled, when troops were sent to suppress the rising; but their provisions failed before they reached any successful issue. Grieved at this state of affairs, the Emperor sent Kung-sun Hung* to investigate the matter. On his return he reported on certain defects requiring to be remedied, and was himself appointed Censor and Great Statesman. About that time the fortress of Suh-fang,† on the Yellow river, had just been built in order to repel the Heung-noo. In view of the urgency of these affairs, Kung-sun Hung and others gave it as their opinion, that the consideration of the South-western barbarian difficulties might, with advantage, be postponed for a time, while all the energies of the empire were concentrated on the Heung-noo. The Emperor approved the counsel, and suspended the Western barbarian operations; merely establishing two districts, appointing a Protector General for the Southern barbarians, and gradually putting Këen-wei into a complete state of self-defence.

It was in the year B.C. 122, that Chang Këen‡ the Marquis of Po-wang, reported that "on his mission to Ta-hea (the Dahæ) he saw there Shuh cloth and Keang bamboo staves.§ On inquiring whence they came, he was told that they were bought from Shuh traders in south-eastern India, at a distance of several thousand *le*." It was said that India lay about two thousand *le* to the west of Keang; when Chang Këen stated that "the Dahæ dwelt south-west from China. On his return, his passage had been intercepted by the Heung-noo. Now the road from Shuh, by way of India, was actually nearer, and by it, all annoyance from the Heung-noo would be avoided." Consequent on this representation, the Emperor fitted out an expedition, consisting of Wang Jen-yu, Pih Che-chang, Leu Yu-jin and

* For a short notice of this minister, see Mayers' "Chinese Reader's Manual," p. 90.

† On the site of the present prefectural city of Ning-hea in N. lat. $38^{\circ} 32'$ $40''$, E. long. $106^{\circ} 7' 30''$.

‡ For a notice of this minister, see Mayers' "Chinese Reader's Manual," p. 5.

§ Keang is said to be the name of a hill in Szechuen, producing bamboos with long joints and solid hearts, fit for making staves.

others, more than ten in all, with instructions to find their way through the South-western barbarians, and endeavour to discover India. On reaching Tëen, Tang Keang, the King of that country, detained them, on the ground that they were searching out the roads. For more than four years the highways were all closed, and there was no communication with Kwān-ming. The King of Tëen haughtily said to the Chinese envoys :—"Is the Han a greater kingdom than ours?" A similar reception awaited the envoys to the Marquis of Yay-lang. Each of these considering himself sovereign in his own domain, was unconscious of the magnitude of the Han Empire. From the information gathered on this occasion, the envoys on their return reported that Tëen was a great kingdom, and if closely attached to the empire, was calculated to render important service. The suggestion was favourably received by the Emperor.

On the revolt of Southern Yuě, the Marquis of Che-e was commissioned, through the medium of Këen-wei, to raise Southern barbarian troops. The Prince of Tseay-lan, suspecting they were bent on an expedition among the adjacent kingdoms, to carry off the old and feeble, in concert with his dependents rose in rebellion, and killed the envoy, and the Governor of Këen-wei. The Han then raised a corps of Pa and Shuh convicts for the service. In the army raised to attack Southern Yuě, there were eight Deputy Protectors; and on the subjugation of Yuě, these Deputy Protectors were still continued in office. The Inner Usher Generals Ko Chang and Wei Kwang then led the troops back to the chastisement of Tseay-lan, which had cut off the highway through Tëen. With the decapitation of some tens of thousands, the Southern barbarians were reduced to subjection, and formed into the Tsang-ko region. At first, the Marquis of Yay-lang had relied upon Southern Yuě; but when the Han troops had exterminated the latter, and were returning to chastise those who had rebelled, the Marquis hastened to pay court to the Emperor, who raised him to the dignity of King of Yay-lang. After the subjugation of Southern Yuě, when the Princes of Tseay-lan and K'ëung were chastised, and the Marquis of Tsō put to death by the Han, the rulers of Yen and Mang, both trembling with fear, requested to be admitted as vassals, and to have officers of the empire appointed. K'ëung-too was then made the Yuě-suy region; Tsō-too was made the Ch'in-le region; and Pih-ma to the west of Kwang-han was made the Woo-too region. Wang Jen-yu was commissioned to spread the report of the subjugation of Yuě and the prowess of the troops in chastising the Southern barbarians, so that it should come to the ears of the

King of T'een. Those who paid court to T'een numbered several tens of thousands; and the neighbouring tribes of Laou-shin and Me-mo on the north-east, who were all of the same clan name and mutually dependent, caused the King of T'een to turn a deaf ear to the reports of the Han successes; while Laou-shin and Me-mo on several occasions made offensive attacks on the envoy's forces.

In B.C. 109, the Emperor raised Pa and Shuh troops; and having exterminated Laou-shin and Me-mo, the army proceeded to T'een; but the King having promptly declared his loyalty to the Emperor, the country was spared the miseries of war. The King of T'een then breaking off his connection with the Western barbarians, submitted with his whole nation, requested to have Imperial officers appointed, and paid court to the Han. The country was named the Yih-chow region, and the King of T'een was invested with the royal seal; the people being still entrusted to his rule. Of some hundred princes and chiefs of the South-western barbarians, only Yay-lang and T'een were invested with the royal seal; and considering the narrow boundaries of T'een, this was a very distinguished act of favour.

Twenty-three years later, in B.C. 86, the people of L'een-tow and Koo-tsang in the region of Yih-chow rebelled, and killed the Imperial officers set over them. The inhabitants of twenty-four districts of the region of Tsang-ko, including T'an-che, Tung-ping and others, comprising more than 30,000, all rose in insurrection. The Shwuy-hang Protector General thereupon raised over 10,000 men from Keen-wei and Pun-ming in the Shuh region, attacked Tsang-ko, and utterly destroyed it.

Three years after this, Koo-tsang and Yeh-yu again rebelled, and Leu Peih-hoo the Protector General of Shwuy-hang was sent in command of the army to attack them. The commander, however, failing to advance, the barbarians killed the Governor of Yih-chow; and on the strength of their success, engaged the troops of Leu Peih-hoo in battle, over 4,000 people having been drowned on the occasion.

Next year the military chief Wang Ping was again sent with T'een Kwang-ming of the Banqueting house, and others, who advanced in concert, and signally routed the insurgents. In Yih-chow they beheaded and took captive more than 50,000 people, and carried off over 10,000 head of cattle. Wang Po, the Marquis of Kow-ting, was warmly eulogized by the Emperor for leading forward the chiefs and people of his district to attack the rebels, and for the number he had decapitated and taken captive; for which merit he was invested as King of Kow-ting. On T'een Kwang-ming, the Banqueting-house magnate,

was conferred the rank of Marquis of Kwan-nuy, with the revenue of a district of 300 houses.

After an interval of a year, the Te tribe in Woo-too rebelled ; when Chih Kin-woo, Ma Shih-keen, Han Tsang the Marquis of Lung-gih, and the Banqueting-house magnate T'een Kwang-ming were sent in charge of an army to reduce them.

During the period *Hsü-ping* (B.C. 28-25), Hing the King of Yay-lang, Yü the King of K'ow-ting, and Yü the Marquis of Low-go again raised troops and were at war with each other. The Governor of Tsang-ko requested that an Imperial army might be sent to chastise Hing and the others. The supreme councillors however, considering the great distance, thought it impolitic to attack them ; and the Grand Middle Great Statesman Chang Kan of the Shuh region was sent with credentials to effect an amicable separation. Hing and the others, however, made light of his commission ; they carved a wooden image of a Han official, and set it up by the road-side as a mark to shoot at. Such was the state of affairs when Too Kin addressed the Great General Wang Fung in the following terms :—"The Great Statesman Chang Kan was sent to effect an amicable separation between the barbarian kings and the marquis ; but since the former have received the Imperial decree, they continue fighting together as before. They treat the Han envoy with contempt, and it is obvious they stand in no dread of the Imperial retribution. I suspect the councillors have selected one of a nature too yielding to hold the credentials for amicable separation. The Governor of Tsang-ko, anticipating that the course of events might develop into rebellion, has reported the matter. In such a pass we might defer action for a while, till the kings and marquis go forth on their hunting expeditions, when their retinues will be augmented and strengthened. They will then be divided into numerous cabals ; and burning with unquenchable fury against each other, they will enter on a course of mutual extermination. Then acknowledging their errors in having been betrayed into insane transgressions, the far-reaching virtues of the Protectorate will spread a genial heat over the land of poisonous growths. Were it even the Generals Sun* and Woo,† with their energetic trained bands, should they rush into the fire or water, they would certainly be burnt or drowned. The utter futility of valour in such a case is obvious ; while the maintenance of military colonies would involve an incalculable

* A commander and writer on military strategies in the sixth century B.C. See a short notice of him in Mayers' "Chinese Reader's Manual," p. 194.

† A celebrated commander who lived at the beginning of the fourth century B.C. For a short notice of him, see Mayers' "Chinese Reader's Manual," p. 260.

expenditure of provisions. Before evil designs have broken out in overt acts, before suspicion is awakened, let the Imperial Government administer chastisement; and secretly advise the Protectors of the neighbouring regions, to train infantry and cavalry. Let the Minister of Agriculture arrange in advance to have stores of grain in important and dangerous places. Let governors be specially selected to fill the posts; and let the army proceed in the cool autumn season to inflict chastisement. If the kings and marquis still refuse to submit to reason, then the territory must be considered unproductive, and the people useless. The ancient sage kings would have objected to distress the empire with such encumbrance. It is preferable to relinquish the region; abandon the people; cast off the kings and marquis; and cut off all further intercourse. If we would aim at the merit attained by former Emperors which the lapse of ages cannot obliterate, then we ought utterly to crush the evil in the bud. If it is allowed to assume shape, and the military are then called forth to suppress it, the whole population is plunged into distress." Consequent on this counsel, Wang Fung recommended the Kin-ching Cavalry leader, Ch'in Leih, for Governor of Tsang-ko, for which he was put in commission. Ch'in Leih was a native of Lin-k'eung,* formerly chief of Lēen-jin,† and also ruler of Puh-wei‡, when he was feared by the barbarians. On his arrival at Tsang-ko, he communicated the Imperial edict to Hing the King of Yay-lang. Hing, however, disregarded the commands; and Ch'in Leih requested that he might be allowed to chastise him. Before an answer arrived, however, Ch'in Leih, taking some tens of officers, proceeded by the district of Hing to the Tseay-tung pavilion in Hing's kingdom, where he summoned that prince. Hing went at the head of several thousand men, and on reaching the pavilion went in to see Ch'in Leih with a suite of several tens of territorial princes. After repeated denunciations, Ch'in Leih ended by striking off his head. The territorial princes exclaimed:—"In cutting off this scourge, the General has delivered the people from their distress; it is desirable now to issue a proclamation to the troops." Hing's head was then exposed to public view; and the leaders all disbanded their troops and submitted. Yù, the King of Kow-ting, and Yù the Marquis of

* This occupied the site of the present department of K'eung in Szechuen, the city being in N. lat. 30° 28', E. long. 103° 34'.

† A territory included in the kingdom of Teen, on the site of the present inferior department of Gan-ning in the prefecture of Yun-nan, the city being in N. lat. 25°, E. long. 102° 38'.

‡ On the site of the present district of Paou-shan, in the prefecture of Yung-chang in Yunnan province. The city is in N. lat. 25° 4' 40'', E. long. 99° 25' 55''.

Low-go were now seized with terror, and presented the Imperial army with a thousand bushels of rice, besides oxen and sheep, as a peace offering. On the return of Ch'in Leih to his own region, Ung Che, the father-in-law of Hing, and Hing's son Tseay, exerted themselves to collect the remnant of Hing's troops, and constrained twenty-two of the neighbouring districts to rebel. In winter, consequent on a memorial to the throne, Ch'in Leih trained barbarian forces, placed them severally under the command of the Protector General, the chiefs and officials, and with these, attacked Ung Che's party. Ung Che relied upon raising obstructions in dangerous passes; but Ch'in Leih employed extraordinary troops to cut off the roads for supplies, and adopted counter-stratagems, in order to mislead the insurgents. The Protector General Wan-neen said:—"When soldiers are long inactive, the expense is more than can be borne." Then impetuously leading forward his troops alone, they were defeated, and fled in hot haste to Ch'in Leih's camp. Ch'in Leih was exasperated, reproached Wan-neen for his conduct, and, in mockery, issued orders for rewards to be distributed. The Protector General returned to renew the struggle; when Ch'in Leih led troops to his succour. A great drought occurred at this time; and Ch'in Leih stopped all the watercourses. The barbarians, then reduced to straits, combined to decapitate Ung Che, took his head, and tendered their submission. Ch'in Leih having thus pacified the Western barbarians, was summoned to the capital. The Pa region being at that time infested by banditti, Ch'in Leih was appointed Governor of the Pa capital, with a revenue equivalent to 2,000 stone of rice, and the title of Left Plebeian chief. He was afterwards removed to the governorship of Teen-shwuy;* where he encouraged the people in the prosecution of agriculture and mulberry culture, as the most important of all occupations. The Emperor then presented him with forty pounds weight of gold, and advanced him to be General of the Left Guard and Army-preserving Protector General, with the control of the forces.

When Wang Mang usurped the Imperial throne (A.D. 9), he changed the laws of the Han and degraded the King of Kowting to the rank of Marquis. Wang Han expressed his indignation at the act, whereupon Chow Kin, the Grand Director of Tsang-ko, clandestinely put Wang Han to death. Wang Ching the younger, brother of Wang Han, in revenge, attacked and killed Chow Kin. The Yih-chow forces were then sent against Wang Ching, but failed to bring him to terms. The barbarians on three sides being distressed and oppressed, all rebelled and killed Ching Lung, the Grand Director of Yih-chow. Wang

* On the site of the present department of Tsin in Kansuh province, the chief city of which is in N. lat. 34° 36', E. long. 105° 16'.

Mang thereupon sent the barbarian-pacifying General Fung Mow to set the officers and soldiers of Pa, Shuh, and Kĕen-wei to levy and collect from the people, taxes sufficient to enable them to attack Yih-chow.

An epidemic raged at intervals for three years, which carried off seven-tenths of the people. Tumultuous risings occurred in Pa and Shuh, when Wang Mang recalled Fung Mow to chastise them. He also sent the Ning-che General Lĕen Tan and the Yung-poo Pastor She Heung, to make a grand levy of Tĕen-shwuy and Lung-se* mounted troops, with 100,000 officers and people of Kwang-han,† Pa, Shuh, and Kĕen-wei; making, with the tax collectors, a force of 200,000 to chastise the malcontents. On their first arrival there was a general decapitation of several thousand people. Afterwards, the commissariat supply was not continuously kept up, and the troops suffered from hunger and epidemic; so that in something over three years the deaths amounted to several tens of thousands.

The Yuĕ-suy barbarian, Jin Kwei, also killed the Governor, Mei Kan, and set himself up as King of K'eung-kuh.

When Wang Mang was defeated and the Han again became the ruling power, Jin Kwei was put to death and the old régime resumed.

History of Southern Yuĕ.

Chaou To,‡ the founder of the kingdom of Southern Yuĕ, was a native of Ching-ting.§

After the ruler of Ts'in had united the empire (B.C. 222), he marked out the boundaries and pacified Yang Yuĕ|| (B.C. 215). Having appointed the regions of Kwei-lin,¶ Nan-hae,** and Seang,†† he removed the inhabitants, settling them among the people of Yuĕ.

* A territory on the site of the western part of the present province of Shense.

† On the site of the present district of Pung-ke in Tung-chuen prefecture in the province of Szechuen; the city being in N. lat. 30° 46', E. long. 105° 45'.

‡ For a notice of this prince, see "The Chinese Reader's Manual," p. 17.

§ A district occupying the site of part of the present prefecture of Ching-ting, of which the chief city is in N. lat. 38° 10' 55", E. long. 114° 45'.

|| Native commentators explain this as being the region of Yuĕ lying south of the department of Yang.

¶ This is still represented by a prefecture of the same name; the chief city of which is the capital of Kwangse province, being in N. lat. 25° 13' 12", E. long. 110° 13' 50".

** A region now represented by the province of Kwangtung; the name is still retained as that of a district of the prefecture of Kwang-chow; the district city, being included within the walls of Canton, is in N. lat. 23° 7' 10", E. long. 113° 14' 30".

†† A region on the site of the present inferior departments of Hwa in the prefecture of Kaou-chow in Kwangtung province, and Seang in the prefecture

Thirteen years later, on the accession of the Emperor Urh-she (B.C. 209), when Jin Heaou,* the Protector of Nan-hae, was on his death-bed, he summoned Chaou T'o who was then ruler of Lung-chuen,† and thus addressed him: "Chin Shing and others have broken out in rebellion; there are heroic spirits arrayed against the Ts'in, and supporting each other in the assumption of power. Now Nan-hae being remote from the centre of authority, I fear the brigand troops may advance upon us; we ought therefore to raise troops for ourselves and cut off the new road communicating with Ts'in. Taking these precautions, we can watch the defection of the feudal princes till the disorder becomes extreme. Then Pan-yu, relying on the dangerous passes in the mountains, and having the assistance of a considerable number of Chinese throughout the length and breadth of a country of several thousand *le*, this department may rise to the dignity of a kingdom. This is a matter about which it is unnecessary to consult with the officials of other regions." He then ordered a proclamation to be issued which was written by Chaou T'o, who took upon himself the office of Protector. When Jin Heaou was dead, Chaou T'o transmitted despatches to the officers at the barriers of Hwang-poo, Yang-shan,‡ and Hwang-kuh,§ to the following effect: "The brigand troops are coming; hastily cut off the passages; assemble forces and hold your posts." Following up this policy he gradually and methodically rooted out the officials who had been appointed by the Ts'in, and set up clandestine governors of his own cabal.

When the Ts'in dynasty was at an end, Chaou T'o attacked and annexed the Kwei-lin and Seang regions, assuming the style of Martial King of Southern Yuě.

Kaou-te, the founder of the Han, having pacified the empire (B.C. 202), the Chinese, wearied out with their fatigues, left Chaou T'o at liberty in his assumed dignity.

In the year B.C. 195, Luh Kea|| was sent to invest Chaou T'o as King of Southern Yuě, and gave him a counter-token with authority of free intercourse, and a commission to effect terms of peace among the various Yuě tribes and to prevent them

of Lew-chow in Kwang-se province. The present city of Seang is in N. lat. 23° 59', E. long. 109° 25' 50".

* For a notice of this general, see "The Chinese Reader's Manual," p. 75.

† This name is still retained as that of a district, of which the city is in N. lat. 24°, E. long. 115° 8'.

‡ Yang-shan barrier was in a range of hills in the district of Yang-shan, in the department of Leen in Kwangtung province.

§ This appears probably to be somewhere in the prefecture of Shaou-chow in Kwangtung province.

|| For a brief notice of this functionary, see "The Chinese Reader's Manual," p. 139.

molesting the southern border, where their territory was conterminous with Chang-sha.

In the time of the Empress Kaou-how (B.C. 187-180), on the recommendation of the authorities, the market for iron implements at the Yuĕ barrier was suppressed. Chaou T'o thereupon expostulated in the following terms: "When I was invested by the Emperor Kaou-te, I was guaranteed free intercourse for envoys and goods. Now the Empress Kaou-how has cut off the traffic in implements, in order to estrange the barbarian tribes, in compliance with the counsel of slandering ministers. This is certainly a scheme of the King of Chang-sha, who wishes, by the aid of China, to exterminate Nan-hae, and to make a merit of annexing it to his own kingdom." Chaou T'o then increased his dignity by taking the title "Martial Emperor of the South," raised troops, made a raid on the borders of Chang-sha, and subjected several districts. The Empress sent the General Tsaou, Marquis of Lung-leu to beat back the Yuĕ; but under the heat and moisture of the atmosphere, an epidemic broke out in the army and the troops were unable to cross the mountains.

In little more than a year after this, the Empress died, when there was a cessation of military operations. Taking advantage of the occasion, Chaou T'o, by his military prestige and rich presents, attached to himself the territories of Min Yuĕ* on the east and Gow-lo† on the west. Having now a territory of more than 10,000 *le* from east to west, he erected a yellow mansion and used the left-hand standard, proclaiming his authority on a par with that of China.

On the accession of the Emperor Wān-te in B.C. 179, having given his first attention to the protection and tranquillity of the empire, he then announced to the feudal Princes and the barbarian tribes on all sides, that he had assumed the reins of power in the legitimate order of succession; intending thereby to proclaim his substantial dignity. He next appointed a guardian to the territory of Chin-ting, the ancestral burying-place of Chaou T'o, to offer the yearly sacrifices. He summoned the brothers and near relatives of Chaou, placed them in honourable posts, and treated them with the greatest favour. The Minister Chin Ping‡ was then called upon to select a suitable envoy to be despatched to Yuĕ. Chin Ping replied: "In the time of your Imperial predecessor, Luh Kea was the envoy

* This appears to have occupied generally the site of the present province of Fuhkeen.

† This was apparently a division of Cochin-China.

‡ For a notice of this minister, see "The Chinese Reader's Manual," pp. 32, 33.

to Yuě." The latter was consequently summoned by the monarch, who made him a Grand Middle Great Statesman. At the same time the interpreter who accompanied him was made Assistant Envoy, and bore a letter to Chaou T'o to the following effect: "The august Emperor earnestly inquires regarding the bitterness of soul and sorrow of heart of the King of Southern Yuě. I, the son of a collateral branch of the house of Kaou-te, having been sent outside the empire, have served at Tae in the northern boundary-land; and in consequence of the distance from your domain, have been in ignorance of what has been passing, and in my rustic simplicity have neglected hitherto to transmit a letter to you. Kaou-te abandoned a host of Ministers. The Emperor, Hwuy-te, succeeded to the supreme power. When the Empress Kaou-how took affairs into her own hand, unfortunately the national distress increased from day to day without intermission, and the perverse tyranny of the ruling powers incited the rebellion of the Leu Princes.* Thus arose a state of anarchy; the Empress, feeling herself inadequate single-handed to cope with it, took into her confidence a member of the T'o family, to succeed the Emperor Hwuy-te; but the faithful Ministers, relying on the efficacy of the Imperial ancestral temple, put the usurper to death. The affair being thus ended, I cannot but ratify the authority of the Kings, Marquises, and Officers who have remained steadfast. Now on ascending the throne I hear that your Majesty transmitted a letter to General Tsaou, the Marquis of Lung-leu, inquiring after your kindred and requesting the degradation of two Chang-sha Generals. In accordance with your Majesty's letter, I have suspended the General, the Marquis of Po-yang. In regard to your kindred at Chin-ting, I have sent officers to institute inquiries and to repair your ancestral tombs. On a former occasion, as I have heard, your Majesty sent troops who were engaged in incessant raids on the frontier, from which Chang-sha was suffering severely and the southern regions still more so. Though your Majesty may deem it due to the exigencies of your kingdom to kill numbers of troops and wound good officers, thereby making widows, orphans, and childless parents, till only one in ten is left; such proceedings are more than I can endure. Wishing to put a stop to this tearing of each other, like dogs, throughout the land, I inquired the views of my officers on the subject, and they stated how the Emperor Kaou-te had attacked the Chang-sha territory. But as I could not treat this matter as rebellion, the officers

* A faction consisting of the brothers and nephews of the Empress Kaou-how. See "The Chinese Reader's Manual," p. 144.

said : 'To possess the territory of a King does not entitle one to be considered great ; to possess the riches of a King does not entitle one to be deemed wealthy. The Imperial orders are carried out by the Southern King himself. Nevertheless the King styles himself Emperor. Were two Emperors to exist at the same time, neither one could retain the Imperial functions, and when their envoys traversed the highways contentions must arise.' Now contending and refusing to yield precedence is not the attitude of the benevolent man. My desire is to make a division with your Majesty ; let bygone troubles be forgot ; henceforth let envoys pass freely as of old. For this end I have sent Luh Kea with this missive, to which I trust your Majesty will give heed and cease your raids. The letter is accompanied with three packets, containing 50 robes in the first, 30 in the second, and 20 in the third, which I hope your Majesty may be pleased to receive. With earnest salutation to our neighbouring kingdom."

When Luh Kea reached Southern Yuě, the King fearing the consequences, received him with humble salutation, being desirous to accept the illustrious decree, giving him the status of a vassal of the empire, accompanied by the payment of a tribute. He then published the following notification through his kingdom : "I have heard it said that two champions cannot co-exist, nor do two sages appear in the same age. The Emperor of the Han being the sage Son of Heaven, I henceforth relinquish all claim to the Imperial style, with the yellow mansion and the left-hand standard." In accordance with this he dictated the following letter :—"The great Chief of the Barbarian Tribes, the venerable State Minister T'o, who is drawing near to his end, renders double obeisance in transmitting a letter to his Highness the Emperor. In former time, the venerable statesman was an Imperial official in Yuě, when the Emperor Kaou-te graciously conferred the royal signet on his servant T'o, creating him King of Southern Yuě, enjoining on him the customary tribute of a vassal. When Hway-te ascended the throne, he showed no desire to break off the relationship thus established ; and was very liberal in his gifts to the venerable statesman. Upon the assumption of the reins of state by the Empress Kaou-how, she drew around her a set of worthless fellows, and put faith in slanderous Ministers. She accordingly issued the following order :—"Do not supply the Barbarian and Yuě tribes with metal, iron, agricultural implements, horses, oxen or sheep ; or if they are supplied, let them have male animals, but no females.' The venerable statesman being located in a secluded country, his horses, oxen and sheep were already old ; and as it was a capital crime to neglect the appointed sacrifices, he caused the Inner Recorder Fan, the

Middle Protector Kaou, and the Historiographer Ping, on three separate occasions to forward despatches acknowledging the transgression; but no answer was ever returned. It was also reported, that the tombs of the venerable statesman's parents had been destroyed, his brothers had been despoiled, and his clan ruined. Thereupon consulting with his officials, he said:—'Now we can get no succour within from the Han, and being lost outside the empire, we must take a higher stand than heretofore.' He therefore changed his title to that of Emperor, but in raising his kingdom to an empire, he had no idea of anything prejudicial to the universal empire. The Empress Kaou-how, on hearing of this, however, was so incensed, that she expunged Southern Yuě from the state register, and prohibited the passage of envoys. The venerable statesman suspected that her Highness had been prompted by slanderous Ministers like the King of Chang-sha. Hence he ventured to send troops to attack the border lands; the southern part of which was inhabited by barbarian tribes. On the west was Western Gow, with a half-exhausted population, whose chief was styled king, and sat facing the south. On the east was Min Yuě, with a population of some thousands, whose head also was styled king. On the north-west was Chang-sha, half the population of which consisted of Southern barbarians, and their chief was also styled king. Hence the venerable statesman, to gratify a wayward inclination, surreptitiously assumed the title of Emperor. The venerable statesman having himself pacified the domains of a hundred cities, amounting to thousands and tens of thousands of *le* on the north, south, east and west, and commanding more than a million armed warriors, yet sits facing the north, and would serve as a vassal of the Han. How is this? Because he dares not turn his back on the land of his forefathers. The venerable statesman has lived forty-nine years in Yuě, and is now rearing grandchildren. Yet he rises in the morning and goes to bed at night, but is unrefreshed by rest; he relishes not the taste of food; his eyes enjoy not the most fascinating sights; his ears are inattentive to the sounds of bells and drums, and all because he cannot serve the Han. Now that your Imperial Highness has taken compassion on him, he will resume his old title, and send envoys to the Han as heretofore. Before the dead bones of the venerable statesman are rotten, he will change the title, not daring to retain Imperial pretensions. Respectfully facing the north, he begs to present by the envoy, a pair of white jade sceptres, a thousand humming-birds, ten buffalo horns, five hundred purple cowries, a case of cassia grubs, forty pairs of living humming-birds, and two pairs of pea-fowls. Half dead, he again makes

obeisance, in offering this report to his Highness the Emperor." When Luh Kea returned and made his report, the Emperor was greatly delighted.

Thus matters continued till the time of King-te (B.C. 156-141), when styling himself a vassal, he sent an envoy to Court, requesting a ratification of relations. In his own kingdom, he retained the same title as before; but in sending an envoy to the Emperor, he took the title of King, and by Imperial command was classed among the feudal princes.

In the year B.C. 137, Chaou-T'o died, and was succeeded by his grandson Chaou Hoo, as King of Southern Yuë.

In B.C. 135, Ying, the King of Min Yuë, raised troops and attacked the border cities of Southern Yuë. The prince of the latter kingdom in consequence addressed the following memorial to the Emperor:—"The two Princes of Yuë, being both border vassals of the empire, ought not arbitrarily to raise troops and attack each other; but now the King of Eastern Yuë has clandestinely raised a force and invaded your servant's territory. Your servant, however, does not dare to raise troops without a rescript from your Imperial Highness." The Emperor thereupon commended the judicious conduct of the Prince of Southern Yuë, in preserving inviolate his bond of authority. He therefore raised an army and sent two generals to punish Min Yuë. Before they had crossed the mountains, however, Yu-shen, the younger brother of the King of Min Yuë, put Ying to death, and made his submission, which brought hostilities to an end. The Emperor then sent Yen Ts'oo to announce the result to Chaou Hoo, the King of Southern Yuë, who made obeisance, saying:—"The Emperor raised troops to chastise Min Yuë; but the death of the King has deprived the army of the opportunity of reporting its merits." He then resolved on sending his son Ying-tse as a hostage to the Imperial capital, and said to Yen Ts'oo:—"Our country has recently been exposed to brigand raids; let the envoy proceed on his way." Chaou Hoo occupied himself day and night in preparations to pay a visit to the Emperor; but when Yen Ts'oo was gone, his high Ministers remonstrated with him, saying:—"The Han monarch raised troops to chastise Ying; but they marched also to inspire Southern Yuë with awe. The former King said:—'In serving the Emperor, strict regard must be had to the proper season.' An important point in the rites is to avoid the appearance of timidity. You like to speak of going to Court; but should you go, you will not be allowed to return, and the autonomy of our kingdom will be at an end." Yielding to this counsel, Chaou Hoo pleaded sickness, and never went to Court.

More than ten years after this Chaou Hoo really became

dangerously ill, and his eldest son Ying-tse was permitted to return home. On the death of Chaou Hoo shortly after, he was canonised as Wan Wang (Accomplished Prince) and was succeeded by Ying-tse, who on ascending the throne, took possession of the royal signets which his ancestor had received from the Emperors Woo-te and Wan-te. While Ying-tse was residing in Chang-gan the metropolis, he took to wife a daughter of the Keu family of Han-tan,* by whom he had a son named Hing. On assuming the regal authority, he forwarded a memorial to the Emperor, requesting that his consort, the daughter of Keu, might be recognised as queen, and her son Hing as heir-apparent. Several envoys were sent from the Court of Han with messages to Ying-tse, while he, disregarding them, gave himself up to pleasure, and determined to take his own way at all hazards; but he feared to pay a visit to Court. He endeavoured, by using the Han laws, to draw towards him the feudal princes. He continued to urge the plea of sickness and never went to Court, but sent his son Tsze-kung as a hostage to the Imperial capital.

When Ying-tse died, he was canonised as Ming Wang (Enlightened Prince) and was succeeded by his eldest son Hing, whose mother was appointed Queen Dowager. Before the marriage of the latter with Ying-tse, she had had intercourse with Gan-kwo Shaou-ke, a native of Pa-ling.† After the death of Ying-tse in B.C. 113, Gan-kwo Shaou-ke was sent from the Court of Han with an edict for the King and Queen Dowager to repair to Court. Orders were issued to the advocates, state advisers, commander-in-chief and others to announce their departure; brave yeomen and trusty Ministers assisted in their movements; and Loo Po-tih,‡ the controller of the guard, took charge of the military settlement at Kwei-yang,§ to wait on the envoy. The king was but young in years, and the Queen Dowager being a Chinese, was accustomed to hold unrestricted private intercourse with Gan-kwo Shaou-ke. This being generally known, the scandal caused the alienation of the greater part of the people of the country. The Queen Dowager, fearing a disturbance might break out, wished to throw herself

* This territory is still represented by a district of the same name in the prefecture of Kwang-ping in Chihle province. The district city is in N. lat. 36° 40', E. long. 114° 40'.

† This is represented by the present district of Heen-ning in the prefecture of Se-gan in Shense province. The district city, which is one of the two forming the provincial city of Se-gan, is in N. lat. 34° 16' 45", E. long. 108° 57' 45".

‡ For a short notice of this general, see "The Chinese Reader's Manual," p. 138.

§ A territory, the site of which is partly occupied by the present district of Leen-shan, in the department of Leen, in Kwangtung province. The district city is in N. lat. 24° 45', E. long. 112°

on the prestige of the Han, and accordingly urged the King and his confidential advisers to seek a closer attachment to the empire. A letter was in consequence entrusted to the envoy, requesting that the King might be put on a par with the feudal princes of the empire, to pay court once in three years, and to have the barriers at the boundary removed. The Emperor assented, and conferred a silver seal on the Prime Minister Leu Kea, as also seals for the Inner Recorder, the Middle Protector, and the Preceptor. The other officials were all left to the King's appointment. The old punishments of branding and cutting off the nose were abolished, and the Han laws adopted. The envoy and suite remained to facilitate the business, and to forward the preparations of the King and Queen Dowager for their departure for Court. The Minister Leu Kea was advanced in years, having served successively under three sovereigns. Among the officers and nobility belonging to the royal house, there were upwards of seventy holding the highest posts. The males were all married to ladies of the royal family, and their daughters were all married to scions of the royal line. There was a connection between the King's family and the King of Ts'ang-woo* Ts'in, and the subjects of that state were very influential in the kingdom. The men of Yuë placed much confidence in them, and looked upon them as ears and eyes to the nation. Thus they gained more ascendancy over the hearts of the people than did the King. When the King would address a memorial to the Emperor, the magnates several times tried by remonstrances to prevent him, but he refused to listen to them. With perversity of disposition, on some occasions he pleaded sickness, and refused to see the Han envoy. The latter looked with jealous eye on the attitude of Leu Kea, who stood in the way of his assassinating the King. The Queen Dowager also fearing Leu Kea and his friends might make an *exposé* of her previous intrigues, wished, in reliance on the envoy's powers, to plan the assassination of Leu Kea and the others. In pursuance of this aim, she gave a feast, to which she invited Leu Kea and the high Ministers. The younger brother of Leu Kea was at the same time in command of the guard outside the palace. As the wine was passing round, the Queen Dowager observed to Leu Kea :—"It would be an advantage for Southern Yuë to form part of the empire; how is it that your Excellency opposes the scheme?" The subsequent conversation irritated the envoy; but being alone and doubtful of the Minister's colleagues, he would not venture a rupture. From what Leu Kea saw and heard, he became aware that evil

* The site of the ancient territory of Ts'ang-woo is now occupied principally by the prefectures of P'ing-lo and Chaou-k'ing in Kwangtung province.

was intended, and rushed from the hall. The anger of the Queen Dowager being aroused, she wished to run him through with a lance, but was arrested by the King. On leaving the palace, Leu Kea returned home under the protection of his brother's troops. Giving out that he was sick, he refused to see the King or the envoy, while he was in fact secretly plotting to raise a rebellion. Hitherto the King had harboured no evil intentions towards Leu Kea, which being known to the latter, he held operations in abeyance for several months. It was the desire of the Queen Dowager alone to put Leu Kea and his friends to death; but she found her power insufficient. The Emperor, hearing of these things, condemned the envoy for his timid want of decision; but considering that the King and Queen Dowager were already attached to the Han, he did not think the mere fact of Leu Kea having raised a disturbance, a sufficient cause for setting the army in motion. He wished to send Chwang Ts'an with two thousand men to quell the rising spirit of insubordination; but the latter declined the commission, saying:—"If I go on a peaceful mission, a few men are sufficient; but for a warlike expedition, two thousand are utterly inadequate." The Emperor thereupon disbanded Chwang Ts'an's troops, when Han Ts'een-ts'ew, a sturdy yeoman of Kië, formerly northern Minister of Ts'e, addressed the monarch to the following effect:—"The King of the petty State of Yuë is still faithful, and it is only Leu Kea from whom any danger is to be apprehended. Let me have three hundred brave warriors, and I will certainly report the decapitation of the delinquent."

The Emperor accordingly despatched Han Ts'een-ts'ew, with the Queen Dowager's younger brother Keu Lo at the head of 2,000 men. When they entered Yue, Leu Kea openly rebelled and issued the following manifesto: "The King is young; and the Queen Dowager—a Chinese by nation—is intriguing with the Han envoy, with the special object of reducing our country to the position of a portion of the Chinese empire; and has taken the signets of all the former kings to present them to the Emperor. To please her vanity, she travels with a numerous suite; her followers being destined to be sold for slaves on reaching Chang-gan. Thus for the brief gratification of her own pleasure, she would abandon the national altars to the gods of the land and grain of the house of Chaou, which have been the objects of anxious thought for 10,000 generations." He then assumed joint command of the troops with his younger brother, attacked and killed the Queen Dowager, the King, and the Han envoy with all his retinue. Messengers were sent to inform the King of Ts'ang-woo Ts'in, and the authorities of the

various regions and districts; and Kéen-tih, the Marquis of Shüh-yang, the eldest son of Ming Wang by a native Yuë consort, was proclaimed King. The troops of Han Tsëen-ts'ew then advanced into the country, and captured several small cities. After this the people of Yuë made a road straight through the country for the supply of provisions. At forty *le* from Pan-yu, the native troops fell in with Han Tsëen-ts'ew's party, attacked and utterly routed them. The seal of authority of the Han commissioner was taken, sealed up, and placed in mockery on the Sih-shang mountain, as if confessing his guilt. Troops were sent to hold the most important and assailable places. On hearing of these events, the Emperor said: "Although Han Tsëen-ts'ew has failed to achieve military renown, yet he was the boldest of military lances. Let his son Yen-nên be promoted Marquis of Chin-gan. The Queen Dowager—being sister to Keu Lo—wished above all things, when in life, to incorporate the country in the Han empire. In remembrance of this, let Keu's son Kwang-tih be promoted to be Marquis of Lung-kang." A general amnesty was announced throughout the empire, with the following proclamation: "The Emperor appears feeble and insignificant, while the feudal princes, who govern with vigour, ridicule the Ministers who are impotent to suppress the brigands, while Leu Kea, Kéen-tih and others have rebelled and set up a government of their own without hindrance. Orders have been given to the men of Yuë, and all those from the Keang and Hwae* rivers southward, forming a force of 100,000 strong, to proceed in house-boats to suppress the insurgents."

In the autumn of B.C. 112, Loo Po-tih the controller of the guard, was made Wave-subduing General, and left Kwei-yang, descending the Hwang river. The titular Lord Protector General Yang Po, who was made House-boat General, left Yu-chang, descending the Hwang-poo. Two Yuë marquises who had previously given in their allegiance, were made Dredging-boat Generals, and left Ling-ling;† some of the party descending the Le‡ river, and some going to Ts'ang-woo. The Marquis of Che-e was sent in command of Yay-lang troops, to accompany the Pa and Shuh convicts, and descended the Tsang-ko river. All these were to meet at Pan-yu.

* A river rising in Shense province, which runs between the Yellow and Yang-tsze rivers. It debouches by the same mouth as the late Yellow river, and was formerly the more important of the two.

† This is now represented by the district of Kwan-yang, in the prefecture of Kwei-lin in Kwangse province. The district city is in N. lat. 25° 21' 36", E. long 110° 59' 10".

‡ This appears to be the Foo *keang*, which passing Kwei-lin city, enters the West river at the prefectural city of Woo-chow.

In the winter of B.C. 111, Yang Po advanced in command of the choicest troops, subjugated Tsin-shen, broke down the stone barrier,* and captured the Yuë boats and store of rice. With this advantage he pressed forward, forcing back the Yuë spearmen; and with several tens of thousands of men waited the arrival of Loo Po-tih. The latter had command of the convicts, and the way being long, the appointed time for meeting was already past when they came up with Yang Po, the contingent numbering over 1,000 men. The united force then advanced, Yang Po with his house-boats in front. On reaching Pan-yu, they found the city was held by Këen-tih and Leu Kea. Yang Po selected a convenient place facing south-east, and Loo Po-tih's force faced north-west. As evening approached, Yang Po made a victorious attack, when the men of Yuë set fire to the city. Loo Po-tih's fame had already reached Yuë, but being evening, they could not ascertain the number of his force. He then pitched his camp, and sent a messenger calling on the commander of the besieged to submit, and receive the seal and ribbon of investiture; but the messenger returned with a counter order, summoning the besiegers. Yang Po then made a vigorous attack, and burned the Yuë fortress; the defenders being driven back into the camp of Loo Po-tih. Under cover of night, Leu Kea and Këen-tih with a few hundred followers made their escape to the sea. In accordance with information derived from those who had submitted, Loo Po-tih sent men in pursuit of Leu Kea's party. The Deputy Protector and cavalry leader, Soo Hung, captured Këen-tih, and was promoted to be Marquis of Hae-chang. Too Ke, an officer of Yuë, took Leu Kea, and was promoted to be Marquis of Lin-tsae.

Chaou Kwang, the King of Ts'ang-woo, who bore the same family name as the King of Yuë, hearing of the arrival of the Han troops, submitted, and was made Marquis of Suy-taou. She Ting, the ruler of Kūh-yang† in Yuë, submitted to the Han, and was made Marquis of Gan-taou. The Yuë General, Peih Tseu, submitted with his troops, and was made Marquis of Leaou. Keu Ung, the Superintendent of Kwei-lin, announced the submission of Gow-lo with over 400,000 inhabitants, and was made Marquis of Seang-ching. Before the dredging-boat force, and the Yay-lang troops under the command of the Marquis of Che-e had arrived, the capital of Southern Yuë was already in

* This was a barrier of stones across the river, twenty *le* above Pang-yu, which Leu-Kea caused to be erected to prevent the approach of the Han vessels.

† A territory partially corresponding in site to the present districts of Hae-yang, Jaou-ping, and Kūh-yang, in the prefecture of Chaou-chow, in the north-east of Kwangtung province. The district chief city of Kūh-yang is in N. lat. 23° 32', E. long. 116° 20'.

the hands of the Han authorities. The country was then divided into the nine regions of Tan-urh,* Kew-yae, Nan-hae, Ts'ang-woo, Yuh-lin,† Hō-poo,‡ Keaou-che,§ Kew-chin,|| and Jih-nan.¶ Loo Po-tih received further promotion. Yang Po, who had subdued the opposing force, by dint of his clubs and lances, was made Marquis of Tseang-leang.

From the first King Chaou T'o to the extinction of the kingdom of Yuē, there were in all five hereditary kings, whose reigns extended over ninety-three years.

History of Min Yuē.

Tsow Woo-choo, the King of Min Yue, and Tsow Yaou, the King of Tung-hae** in Yuē, were both descendants of Kow Tseen†† the King of Yuē. When the ruler of Ts'in had united the empire (B.C. 222), they were reduced to the rank of chiefs, their territory being made the region of Min-chung.‡‡

On the rebellion of the feudal princes against Ts'in, Woo-choo and Yaou led the men of Yuē to join Woo Juy§§ the ruler of Poyang, then designated Prince of Pa, who took part with the feudal princes in putting an end to the Ts'in dynasty. About this time Heang Tsih||| ruled that the title of king should be abrogated; hence these two princes refused to assist Ts'oo; and when the Han army attacked Heang Ts'ih, Woc-choo and Yaou came to the assistance of Han, with the men of Yuē.

Woo-choo was re-invested as King of Min Yuē in B.C. 201,

* Now represented by the department of Tan in the Island of Hae-nan. The city is in N. lat. 19° 32', E. long. 109° 20'.

† This is now represented by the department of the same name in Kwangse province. The city is in N. lat. 38° 18' 8", E. long. 109° 22' 30".

‡ Now represented by the prefecture of Leen-chow in Kwangtung province. There is still a district of the prefecture named Hō-poo, of which the city is in N. lat. 21° 38' 54", E. long. 108° 58' 50".

§ Part of Tongking.

|| Part of Cochinchina.

¶ Part of the prefecture of King-yuen in Kwangse province, of which the chief city is in N. lat. 24° 26' 24", E. long. 108° 24' 30".

** Partly on the site of the present prefecture of T'ae-chow in Chekeang province; of which the chief city is in N. lat. 28° 54', E. long. 121° 5' 54". The domain extended to the sea.

†† Kow Tseen succeeded to the principedom of Yuē in B.C. 496. See a short notice of him in "The Chinese Reader's Manual," p. 87.

‡‡ The site of this region is now partly occupied by the prefecture of Fuh-chow in Fuhkēn province; the chief city of which is in N. lat. 26° 22' 4", E. long. 119° 25'.

§§ The self-styled ruler of Ts'oo. For a short account of this hero, see "The Chinese Reader's Manual," pp. 51, 52.

||| See a passing reference to this general in "The China Review," vol. vi, p. 321.

and ruled over the ancient territory of Min-chung, fixing his capital at Ya.*

In B.C. 192, the support received from the Yuë princes in establishing the Han dynasty was brought to mind, when it was told the young Emperor—"The merit of Yaou the Prince of Min was great, for he and his people joined us at that time." Yaou was then invested as King of Tung-hae, and fixed his capital at Eastern Gow, with the hereditary title of King of Eastern Gow.

In B.C. 154, it happened that Pe, the King of Woo,† rebelled, and wished to involve Min Yuë in his enterprise, but the latter declined to take any part in it. Eastern Gow, however, joined Woo; but when the latter was defeated, the King of Eastern Gow was bribed to kill the King of Woo; and hence Tan-too, to which he fled, was saved the miseries of spoliation. Keu, the son of the King of Woo, fled to Min Yuë, and being incensed against the King of Eastern Gow on account of his father's death, never ceased to urge the King of Min Yuë to attack Eastern Gow.

At length, in the year B.C. 138, Min Yuë sent an army to surround the metropolis of Eastern Gow; when the latter despatched a messenger to inform the Emperor of their perilous position. The monarch asked the advice of the Grand Protector Téen Fun,‡ who replied—"It is the normal state of things among the men of Yuë to be fighting with each other; there is no occasion for China to trouble itself about going to their assistance." The Middle Great Statesman Yen Ts'oo, however, blamed the council of Téen Fun, saying—"We ought to go to their assistance." Yen Ts'oo then received the Imperial commission to take troops from the Kwei-ke§ region and go by sea to their relief. The details of this expedition are found in the Memoir of Yen Ts'oo.|| Before the Han troops had reached the scene of action, Min Yuë had raised the siege and retired. Eastern Yuë requested that the nation might be removed into

* Somewhere about the site of the present district of P'oo-ching in the prefecture of Keen-ning in Fuhkëen province; of which the district city is in N. lat. 28° 0' 30", E. long. 118° 36' 40".

† A kingdom established under the Chow, corresponding generally to the present province of Keangsoo; the name of Woo is still retained as that of a district in the prefecture of Soo-chow; the city being in N. lat. 31° 23' 25", E. long. 120° 28' 55".

‡ See a passing reference to this minister in "The Chinese Reader's Manual," p. 207.

§ This comprised the greater part of what is now the province of Chekeang, also parts of Keangsoo and Fuhkeen provinces. The name is still retained as that of a district in the prefecture of Shaou-ling, the city being in N. lat. 30° 6', E. long. 120° 29' 11".

|| See Appendix.

China. The population was then settled between the Këang and Hwae rivers.

In B.C. 135, Min Yuě attacked Southern Yuě, but the latter, preserving inviolate their treaty with the Emperor, did not venture to send troops on their own responsibility, but reported the matter to head-quarters. The Emperor thereupon sent Kwei, the King of Ta-hing, from Yu-chang, and Han Gan-kwō* the Grand Superintendent of Agriculture from Kwei-ke, both ranking as generals. Before the troops had crossed the mountains, Ying, the King of Min Yuě, sent forces to bar the difficult passages. His younger brother Yu-shen then consulting with the royal clan, said—"The King has raised a force on his own responsibility, and the Imperial troops are come in consequence to chastise us. The Han troops are numerous and strong, and if we should now be fortunate enough to conquer them, they will afterwards return in greater numbers and will only stop with the extermination of our nation. Let us now kill the King, and thereby become reconciled to the Emperor, when his Imperial Highness will put a stop to the war, and our kingdom will be firmly established. Should you not agree with my counsel, then we must exert every energy in the contest; and should we fail to conquer, we shall be driven into the sea." All approved of this advice, and the King was stabbed to death; an envoy being sent to present the head of the murdered King to the Prince of Ta-hing. On the approach of the envoy, the King remarked—"The new arrival is a regicide." When the King's head was presented the fighting was stopped, and agriculture was resumed, to the unspeakable advantage of the nation. The troops were then disposed in convenient locations. Information was forwarded to Han Gan-kwō; and a messenger was sent to present the King's head, while a fleet courier carried the report to the Emperor. An Imperial order was issued to suspend the military operations of the two generals, the Emperor remarking—"Ying and his party were the chief offenders, but Chow the grandson of Woo-choo and Prince of Yaou had no part in the plot." A secretary commander was then sent to invest Chow as King of Yuě Yaou, with authority to offer sacrifices to the ancestors of the Min Yuě family. Since Yu-shen had killed his brother Ying, he carried himself haughtily in the kingdom, and the greater part of the people being in his power, he had thoughts of setting himself up as king, so that the King of Yaou was unable to exercise his authority. When this came to the ears of the Emperor, he did not consider the matter of sufficient

* For a short notice of this statesman, see "The Chinese Reader's Manual," p. 47.

importance again to call out the military, merely observing—"Yu-shen was the chief instigator of the assassination of Ying, thus saving the army from an exhausting campaign." On this consideration he invested Yu-shen as King of Eastern Yuě, so that he reigned contemporaneously with the King of Yaou.

When Southern Yuě rebelled in B.C. 112, Yu-shen addressed a memorial to the throne, requesting permission to take 8,000 troops in the wake of Yang Po's force to attack the party of Leu Kea. On reaching Hieh-yang, his vessels were dispersed by the stormy waves of the ocean, and he did not proceed. Acting a double part, he secretly sent a messenger to Southern Yuě. When the Han army had subdued Pan-yu, Yang Po addressed the throne, requesting permission to lead the troops to the chastisement of Eastern Yuě, but the Emperor declined the proposal on the plea that the forces were already exhausted with service; and military operations were consequently suspended. Orders were issued for all those under arms to settle in villages in Yu-chang and Mei-ling, there to await orders.

In the autumn of B.C. 111, Yu-shen hearing that Yang Po had requested permission to chastise him, and the Han troops left in his domain having taken their departure, he raised troops to oppose the passage of the Han army, and called out the General Tsow Leih and his party, giving him the title of Han-swallowing General. These advanced upon Pih-sha,* Woo-lin,† and Mei-ling, where they killed the three Han Deputy Protectors. About this time, the Han sent Chang Ching the Grand Superintendent of Agriculture, and Che the former Marquis of Shan-chow, to take command of the military colonies. These, however, did not dare to lead an attack, contenting themselves with moving into convenient positions, where they remained inactive, timidly fearing to take the offensive. Yu-shen had a spurious signet of the Emperor Woo-te engraved, and exalted himself, imposing on the people by false pretensions. The Emperor sent Han Shwo the Hwang-mei General from Kow-chang,‡ to proceed eastward by sea; Yang Po to lead his force by Woo-lin; the Middle Protector Wang Wan-shoo by Mei-ling; and the Yuě Marquis the Dredging-boat General, from Pih-sha in Joo-seay.

In the winter of B.C. 110, all these advanced upon Eastern Yuě; but the ruler of the latter had already sent troops to

* A small territory bordering on the south of the Po-yang lake.

† About a hundred *le* south of Pih-sha.

‡ The island of Chow-shan, comprising the district of Ting-hae in the prefecture of Ningpo in Chekeang province, of which the district city is in N. lat. 30° 0' 10", E. long 122° 14'.

oppose them at the difficult passages. The Seun-pih General was sent to keep Woo-lin, who defeated several of Yang Po's Deputy Protectors, and killed the Chief Recorder. Yuen Tsang-koo of Ts'een-tang, one of the house-boat soldiers, cut off the Seun-pih General's head, for which he was made Marquis of Yu-urh. Before the Imperial troops had left Eastern Yuē, Woo Yang, formerly Marquis of Yen in Yuē, who was already in the Han service, was sent back to his native country that he might admonish Yu-shen, but the latter refused to listen to him. When the Hwang-hae army arrived, Woo Yang rebelled with seven hundred men of his district, and attacked the Yuē army at Han-yang; and when Gaou, formerly Marquis of Kéen-ching under the Yuē, formed a plot with Keu-koo the King of Yaou, and killed Yu-shen, he joined the Hwang-hae army with his followers. Keu-koo was then promoted to be Marquis of Tung-ching, with a benefice of ten thousand families. Gaou was promoted to be Marquis of Keae-ling; Woo Yang was made Marquis of Maou-shih; Han Shwo the Hwang-hae General was made Marquis of Gan-taou; the Hwang-hae Deputy Protector Fuh was made Marquis of Leaou-yang. Fuh was the son of the King of Ching-yang,* and was formerly Marquis of Hae-chang, but having become amenable to the law, he lost his rank. He had failed to signalise himself when in the army, but was made a marquis in consideration of his connection with a royal house. To Keun, the Eastern Yuē General, on the arrival of the Han army threw up his commission, submitted to the Han, and was made Marquis of Woo-seih. Tso Hwang-tung, formerly Gow-lo General, beheaded the King of Western Yu, and was promoted Marquis of Hea-too. Things having come to this pass, the Emperor said—"Eastern Yuē, though of contracted dimensions, is very obnoxious to Min Yuē, and is frequently turned upside-down by quarrels." He then issued a decree ordering all the officials, civil and military, to remove with their people and locate themselves between the Keang and Hwae rivers. Subsequent to this the territory of Eastern Yuē was left vacant.

History of Chaou-sēn.†

The first King of Chaou-sēn was named Mwan [he is called Oueiman by St. Denis, Matuanlin 5—H. H. H.], a member of the Taou family, and a native of Yen. When the kingdom of

* The chief city of this territory lay 90 *le* to the south-east of the site of the present departmental city of Pō in the prefecture of Ying-chow in Ganhwuy, province, which is in N. lat. 33° 57' 50", E. long. 115° 53' 47".

† The country now known as Corea.

Yen* was first established and the boundaries determined, Chin-fan and Chaou-sëen were attached to it, as marked in the state register, the territory being surrounded by entrenchments.

On the extinction of the Ts'in, Yen belonged to the outside boundary land of Leaou-tung.†

When the Han came into power, as this was a distant domain and difficult to be protected, the ancient boundary wall of Leaou-tung was restored anew as far as the Pa River,‡ which belonged to Yen. On the revolt of Leu Wan, the king of Yen, who joined the Heung-noo, Mwan, who appears to have held a responsible post in the kingdom, and was now left very much to his own resources, collected more than a thousand men of his cabal, adopted the costume of the barbarians who bound their hair in a knot, moved eastward beyond the boundary wall, and settled within double entrenchments on the old uninhabited territory of the Ts'in. There he gradually drew into his service the barbarians of Chin-fan and Chaou-sëen, and the escaped subjects of Yen and Ts'e,§ over whom he ruled as King, making Wang-heen his capital.

In the time of the Emperor Hwuy-te [St. Denis calls him Hiao-hoei—H. H. H.] and the Empress Kaou-how (B.C. 194–180) [St. Denis dates this in 197–187 B.C., *op. cit.* 11—H. H. H.], when the empire was just becoming settled, the Governor-general of Leaou-tung made a treaty with Mwan, by which the latter became a vassal of the Han, with authority to protect the barbarians outside the boundary wall, and prevent them plundering on the borders. When any of the barbarian chiefs wished to go to see the Emperor, no impediment was to be put in their way. This was ratified by the Chinese monarch. Thus invested with military prestige and wealth, Mwan brought under subjection the neighbouring petty states, while Chin-fan [This according to the Great Dictionary, Tai-tsing-i-tong-chi is now represented by Fan Han, North West of Corea, Denis, *op. cit.* 11, note 24—H. H. H.] and Ling-tun [This was south-west of Chin-fan, and was afterwards called Kiang-yuën-tao, according to M. de Rosny, it is now the chief town of the district of Tong-i-yen in, Denis, *op. cit.* 12, note 26—H. H. H.], both came to tender their submission, adding several thousand miles square to Mwan's domain. On

* The kingdom of Yen covered the site of the present metropolitan prefecture of Shun-teén, and the site of the capital city was not far from that of modern Peking.

† This name still exists as that of an extramural province, lying between the Great Wall and Corea.

‡ (The Pai Shui also called the Taitong Kiang, which falls into the Yellow Sea opposite the Hall islands; see Matuanlin by St. Denis, 5, note 12, H. H. H.)

§ An ancient seaboard kingdom, corresponding to the present province of Shantung and southern part of Chihle.

the death of Mwan, this power was transmitted by hereditary succession, through his son, to his grandson Yew-k'eu. The numbers of the people were now becoming greatly increased by Han fugitives, whom the King enticed into his service. He never went to pay court in person, and when Chin-fan or any of the neighbouring states forwarded memorials requesting an interview with the Emperor, he stopped them on the way.

In B.C. 109, She Ho, an envoy from the Han, was sent to Yew-k'eu, with an Imperial reprimand for his conduct; but the King persistently refused to receive the Imperial rescript. When She Ho left, on reaching the boundary of the kingdom, he caused his coachman to mortally stab the escort, a petty prince of Chaou-sên. The envoy then crossed the river [*i.e.*, the Pai Shui *see* St. Denis, 12—H. H. H.], entered the boundary wall, and returning with all haste to the capital, reported to the Emperor that he had killed the Chaou-sên General. The monarch replied that he had shed a glory on his name, and made no further inquiries. As a reward for this service, She Ho was appointed Protector General of the eastern tribes in Leaou-tung. The Chaou-sên ruler, incensed against She Ho for his recent dastardly conduct, sent a force which attacked and killed that official. On hearing of this event, the Emperor resolved to attack Chaou-sên by means of bands of convicts. Accordingly, in the autumn, Yang Po, the House-boat General, was commissioned to take his fleet, carrying 50,000 men, and proceed by way of Ts'e and Po-hae,* and the Left General Seun E [St. Denis calls him Sun-chi—H. H. H.] was to go by Leaou-tung, to chastise Yew-k'eu. The latter on his part sent troops to check the invaders at the dangerous passages. Seun E went forward with the Leaou-tung troops in the van. In their first engagement they were defeated and scattered; the greater number returning home, when there was a general decapitation. Yang Po led 7,000 Ts'e troops in advance to Wang-hên. Yew-k'eu, who held the city, ascertained by careful observation the small number of Yang Po's army, and sallying out, attacked the besiegers. Yang Po's army was defeated and dispersed, and the general, deserted by his followers, fled to the mountains. For over ten days he occupied himself in searching out and collecting again the scattered remnant of his troops. Seun E attacked the Chaou-sên army on the west of the River Pa, but failed to subdue them. The Emperor, seeing the ill success that had attended the expedition of the two generals, sent Wei Shan to Yew-k'eu, hoping that in view of the military prestige of the empire, he

* A small territory, located about the north-east corner of the present Shantung province; the centre of which corresponded with the present minor department of Pin, of which the city is in N. lat. 37° 34', E. long. 118° 5'.

might prevail in counsel with him. On seeing the envoy, Yew-k'eu received him with humble obeisance, and begged to tender his submission, signifying that he had thought the two generals intended to compass his life in an underhand way ; but now, seeing the envoy's authentic credentials, he was desirous to testify his loyalty. He sent his eldest son to carry his thanks to the Emperor, at the same time presenting 5,000 horses, and offered to supply the army with provisions. More than 10,000 men carrying arms accompanied Wei Shan on his return ; but when about to cross the River Pa, the envoy and Seun E, suspecting treachery, said to the heir-apparent, that having already testified his loyalty to the Emperor, he ought to order his followers to leave their arms behind them. The heir-apparent, in his turn conceiving that the envoy and Seun E intended foul play, refused to cross the river, and returned with his followers. Wei Shan on his return reported the transaction to the Emperor, by whose orders he was put to death for mismanaging the enterprise. Seun E defeated the army on the River Pa, then advanced on the royal city and encompassed the north and west sides. Yang Po went to join him, and took up his position on the south of the city. Yew-k'eu then strengthened the defences, and for several months could not be compelled to surrender. Seun E had formerly been among the Imperial attendants, and in taking command of the Yen and Ts'e forces, he had rashly relied on the prestige of the victorious army, many of whom were unmanageable. Yang Po, who went to sea in command of the Ts'e forces had already lost the greater number by defeat and flight. His first battle with Yew-k'eu resulted in exhaustion, disgrace, and the loss of his men. The troops were now all afraid the general would lose heart ; for while surrounding Yew-k'eu, he constantly held the credentials of peace.

Seun E made a sudden attack ; whereupon a high Minister of Chaou-séen sent a man under cover of night to make a private compact for the submission of Yang Po. Messages passed to and fro, but they could not come to terms. Seun E made several engagements with Yang Po for a united attack ; but the latter, desiring to complete the compact, failed to meet his engagements with Seun E. Seun E also sent a man to the Chaou-séen camp, to seek some opportunity of causing the latter to submit ; but the besieged refused to listen, their hearts inclining rather towards Yang Po. Thus, by their cross purposes, the two generals utterly failed in their negotiations. Seun E concluded in his own mind that Yang Po, being guilty on a former occasion of losing his army, and now being on amicable terms with the people of Chaou-séen without securing their submission, he must certainly harbour some rebellious intentions which he

had not ventured to divulge. On hearing the state of affairs, the Emperor remarked:—"When the general was unable to make progress, Wei Shan was sent to demand and received the submission of Yew-ke'u; but the negotiation was not successfully carried through, on account of a misunderstanding between him and Seun E, while the troops hindered the completion of the treaty. Now the two generals are beleaguering the city; but through some perverse alienation, they have been long occupied in the siege with no decisive result." Kung-sun Suy, formerly Governor-general of Ts'e-nan* was then commissioned to adjust matters, and to follow up the affair as might seem most judicious. When Kung-sun Suy arrived, Seun E addressed him in these terms:—"Chaou-sëen ought to have surrendered long ago. That it has not done so, is because Yang Po on several occasions failed to come up to his agreement." He then stated to Kung-sun Suy his opinion of the matter, thus:—"Now remaining inactive like this, will I fear prove very prejudicial to our interests; and that not merely as regards Yang Po, but it will lay our army open to complete extermination by Chaou-sëen." Kung-sun Suy assented to these views; and in virtue of his powers, summoned Yang Po to the camp of Seun E, to deliberate on business. On the arrival of Yang Po, the envoy ordered Seun E to cause his subordinates to seize and bind him. The two armies were then united and the transaction reported to the Emperor, who approved Kung-sun Suy's action. Seun E with the combined army made a fierce attack on the Chaou-sëen stronghold. The Chaou-sëen council, consisting of the commander Loo-jin, the commander Han Taou, Ne-ke, the commander Tsan, and the general Wang Këe, then held a consultation, which resulted in the following resolution:—"At first we hoped to obtain the submission of Yang Po, but now he is bound; and Seun E himself being in command of the united army, his attacks are still more violent, and it is to be feared we shall not be able to withstand him." Still the King would not surrender. Han Taou, Wan Këe and Loo-jin all fled to make their submission to the Han, but Loo-jin lost his life on the way.

In the summer of B.C. 108, Ne-ke and the commander Tsan employed a man to assassinate Yew-k'eu, the King of Chaou-sëen, and came to tender their submission. The city of Wang-lëen, however, not having been taken, Ching-sze, a high Minister of the late King, again rebelled, and turned upon the officials of the Han. Seun E thereupon sent Chang, the son of Yew-k'eu, and Tsuy, the son of the surrendered commander Loo-jin, to

* Corresponding generally with the present prefecture of the same name in Shantung, of which the chief city is in N. lat. 33° 44' 24", E. long. 117° 7' 30".

publish the facts to the people, who then put Ching-sze to death. Kung-sun Suy having thus pacified Chaou-sëen, he divided the country into the four regions of Chin-fan [*vide ante*—H. H. H.] Lin-tun [*vide ante*—H. H. H.], Lo-lang [this place was identical with Wangli Eu, Mwan's capital. It also bore the names of Chang-ngan, Ping-yang, and Ping-ngan, and is now called Pyceng-an, St. Denis, *op. cit.*—note 25, H.H.H.], and Heuentoo [in the north of Corea]. Tsan was promoted to be Marquis of Hwa-tsing. Han Taou was made Marquis of Ts'ew-tsoo. Wan Këë was made Marquis of Ping-chow. Chang was made Marquis of Ke. Tsuy, in consequence of the great merit acquired by his late father, was made Marquis of Nêe-yang. Seun E, the Left General, appeared in reply to a summons, and was adjudged as having by rivalry, jealousy, and perverse schemes, contended with his colleague for his own glory; for which he was cashiered. The verdict on Yang Po, the House-boat General, was that when his troops reached Lëih-k'ow,* he ought to have waited for Seun E; but having gone forward on his own responsibility, he had lost the greater part of his troops. For this he ought to suffer capital punishment; but being reprieved, he was reduced to the status of the common people.

PAN KOO'S REFLECTIONS ON THE PRECEDING MEMOIRS.

In the earliest times of the Ts'oo and Yuë, these states had hereditary tenures of land. On the wane of the Chow dynasty, the territory of Ts'oo was 5,000 *le* square; and Kow Tsëen was the Governor of Yuë. Of the feudal princes existing at the extinction of the Ts'in dynasty, it was only Ts'oo that retained the regal dignity, as King of Tëen. When the Han chastised the South-western Barbarians, it was again only Teen that received special consideration. When the kingdom of Eastern Yuë was destroyed, the population was removed; while Keu-koo, the King of Yaou, with his dependants still held a marquisate with a benefice of 10,000 families. The annexation of territory on three sides of the empire originated with Ministers of distinguished service. That of the South-western Barbarians was initiated by Tang Mung and Sze-ma Seang-joo. The two Yuë produced Yen Ts'oo and Choo Mae-shin. Chaou-sëen is due to She Ho, who though possessing hereditary wealth, by the employment of which he might have achieved renown, was nevertheless laborious in personal service. Now in tracing back the course of events, we find how much is due to the Imperial ancestor, who was profuse in his liberality to the Protector Chaou T'o. Is

* The port first reached by the vessels after crossing the Gulf.

not this what the ancients call,—attracting contemporaries by urbanity, and cherishing those from afar by the practice of virtue?

APPENDIX.

MEMOIR of YEN Ts'oo. Translated from the "Tseen Han Shoo,"
Book lxiv, fol. 1—7.

YEN Ts'oo, the son of Yen Foo-tsze, was a native of the district of Woo, in the province of Kwei-ke. It has been said that he was the family representative. At an early period he distinguished himself at the local examination among more than a hundred competitors. The Emperor Woo-te praised Yen Ts'oo's exposition of the enigmas of the "Book of Changes;" and selected him alone for the dignity of Middle Great Statesman.

After this he was the associate of Choo Mae-shin, Woo-keu Show-wang, Sze-ma Seang-joo, Choo Foo-yen, Seu Lo, Yen Gan, Tung-fang So, Mei Kaou, Keaou-ts'ang Chung-keun, Yen Chwang-ke and other statesmen. About the same time the barbarians were being subjugated on all sides; and various regions were being established on the border. The military then were often called out. The interior government was altered; and the Court was much occupied with a variety of business. There were frequent examinations for the selection of men of learning. Several years after Kung-sun Hung had risen into prominence, he was appointed Prime Minister. He then established the Eastern council, and invited men of repute to deliberate regarding Court audiences and memorials, when they made suitable arrangements for the conduct of State affairs. The Emperor ordered Yen Ts'oo and others to deliberate with the high Ministers, that they might bring about a mutual correspondence between the Ministers of the Interior and Exterior, regarding documents on justice and legislation. The high Ministers on several occasions showed signs of opposition. The more intimate, Tung-fang So, Mei Kaou, Yen Ts'oo, Woo-keu Show-wang, and Sze-ma Seang-joo, habitually excused themselves from business on the plea of sickness. Tung-fang So and Mei Kaou persevered in council without avail; while the Emperor busied himself gathering musicians and actors about him. Only Yen Ts'oo and Woo-keu Show-wang were retained in office; and Yen Ts'oo ever took the foremost place.

In the year B.C. 138, the state of Min Yuë raised troops and surrounded the metropolis of Eastern Gow; when the ruler of the latter sent to inform the Han of their perilous position. The Emperor Woo-te, who was not yet twenty years old, asked the advice of the Grand Protector Teen Fun, who replied that it was the ordinary state of things among the Yuë people to be fighting with each other; and argued from various points of view that it was unnecessary for China to trouble itself going to their assistance,

adding :—" From the time of Ts'in, their connection as vassals has been abandoned." Upon this Yen Ts'oo criticised the advice of Teen Fun, saying :—" It is lamentable indeed if our strength is insufficient to rescue, or our virtue insufficient to overshadow. What reason is there to abandon them? The Ts'in indeed abandoned the whole empire up to the capital,—not merely Yuē. Now that a small state, reduced to extremities, has come to announce its distress, should the Emperor fail to redress its wrongs, to whom can it appeal? and how then can he be the father of the myriad states?" The Emperor replied :—" The Grand Protector's counsel is unworthy of consideration; but having recently come to the throne, I do not wish to issue the tiger tablets for raising troops through the various regions and states." Yen Ts'oo was then sent with credentials to raise troops in Kwei-ke. The Governor of Kwei-ke wished to organise a resistance to the levy as illegal; when Yen Ts'oo having decapitated one cavalry leader, openly published the Emperor's designs. Troops were then raised, and proceeded by sea to the delivery of Eastern Gow. Before they reached the scene of action, however, Min Yuē had raised the siege, and operations were consequently suspended.

Three years subsequent to this, Min Yuē again set the troops in motion, and attacked Southern Yuē; but the King of the latter, resolving to maintain inviolate his treaty with the Emperor, would not venture to raise troops on his own responsibility, but reported the matter to Court. The Emperor highly commended his integrity; and ordering a general levy, sent two generals in command of the troops, to chastise Min Yuē. At this juncture, Lew Gan, the Prince of Hwae-nan, presented a remonstrance to the throne, to the following effect :—

" Since the accession of your Imperial Majesty to supreme dominion your virtue has spread abroad and your benevolence permeates the nation.

" You have been slow to inflict punishments, and the collection of imposts has been light. You have pitied the widows and defenceless, and have shown compassion to the orphans and bereaved. You have nourished the aged and infirm, and have upheld the poor and destitute. Your plenitude of virtue rises prominently aloft, and your genial beneficence pervades the lower ranks.

" Those near at hand have become closely attached, while your virtue is cherished by nations more remote. The empire is at peace, and your subjects lead quiet lives, secure in the belief that they will not be molested by military troubles. Now I hear that an army has been raised by the authorities, for the purpose of chastising Yuē. It is the opinion of your servant Gan, that this bodes no good to your Imperial Majesty. Yuē is an outside territory, where the inhabitants cut their hair and tattoo their bodies, and cannot be governed by the laws of a nation wearing caps and sashes. During the flourishing period of the Three dynasties, neither the Hoo nor the Yuē could be brought to adopt the calendar of the empire. Without force they cannot be brought into subjection,

neither can they be controlled. The country may be considered uninhabitable, and the people beyond training; so that it is inexpedient for China to trouble itself about them. Hence the ancients appointed the borders within a thousand *le*, as the feudal tenures. Beyond these was fixed the envoy tenures. The envoy and guard were both guest tenures. The southern and eastern barbarians occupied the restraint tenures; and the western and northern barbarians occupied the desert tenures. A distinction was thus maintained between the near and the distant. Since the establishment of the Han dynasty, for seventy-two years, the men of Woo and Yuē have been occupied with innumerable contests with each other; but the Emperor has never raised troops to invade their borders. Your servant has heard that there are no towns or villages in Yuē: but the people live among the valleys and ravines, or take shelter in the bamboo groves. They are practised in aquatic warfare, and skilful in the management of boats.

“The country is deeply shaded with jungle; and the waters abound in dangerous passes. The Chinese are unacquainted with their arts of obstruction; and should they enter the country, they will be at a hundredfold disadvantage. Were the country conquered, it could not be apportioned into regions and districts. Should it be attacked, it could not be taken by violence. If we examine the charts of the country, we find the hills, rivers and important fortresses separated from each other by inches; while the interjacent territory only extends some hundreds or a thousand *le*. The dangerous obstructions and impenetrable forests are too numerous to be inserted.

“It appears easy to look at, but the enterprise would be exceedingly difficult. The empire—thanks to the intelligent efficacy of the Imperial ancestral temple—is tranquil within the interior boundary. Hoary-headed veterans have never seen the army in action. Conjugal felicity reigns among the married; and mutual affection prevails between fathers and children—all this resulting from your Imperial virtue. The rulers of Yuē are nominally border vassals, with the onus of a tribute of wine; but they render nothing to the metropolitan store; nor have they furnished a single soldier for the Imperial service. When they are fighting together, should your Imperial Majesty send troops for their deliverance, this will be reversing the order, by wearing out the Chinese in the land of the barbarians. Furthermore, the men of Yuē are idiotic, and make light of treaty obligations; they have shown over and over again, that they are incapable of adopting the Imperial laws; and this is a long-standing experience. They will never receive the Imperial rescripts; and should an army be sent to chastise them, your servant apprehends we shall never be at rest from military troubles, and so the land will lie untilled for several years. There has been a succession of unproductive seasons; and the people expect to be obliged to sacrifice their positions, and hypothecate their children, to obtain food and clothing: they rely on the permeating virtue of your Imperial Majesty to relieve

them ; that they may not be found dead in the water-courses and ravines. After four unproductive years, and a visitation of locusts in the fifth, the people have received no return for their toil. Now to send troops on an expedition of several thousand *le*, it will be necessary to provide clothes and provisions to enter the Yuë country. Carriages will be needed to cross the mountain ranges, and track-boats to navigate the waters. After proceeding some hundreds or a thousand *le*, the road is bordered on both sides by dense forests and bamboo thickets ; and the waterway is obstructed by rocks above and below. The forests abound in venomous serpents and ferocious beasts. During the hot season of the summer months, vomiting and cholera follow each other in rapid succession ; and so before they have actually commenced action, a large number will be carried off by death. Formerly when the King of Nan-hae rebelled, the Ministers of your Imperial predecessor sent the General Heen Ke in command of an army to attack him ; who after subduing the refractory troops, settled them on the Upper Kan. After this, rebellion again broke out during the hot season, at a time when much rain fell. The house-boat troops being confined to the water, working incessantly at the oars, were so worn out that more than half their number sickened and died before the fighting began. The tears of the aged blended with the cries and sobs of the orphans. Families were broken up, and patrimonies were dispersed. Householders were met with a thousand *le* from home, gathering up the scattered bones, which they carried back with them. The spirit of mourning and grief was incessant for a number of years ; and even now it is fresh in the memory of our elders. Such were the misfortunes endured even before reaching the country whither they were bound. Your servant has heard that military enterprises are certainly followed by years of dearth ; when the people, under the influence of misery and desolation, transgress the harmony of the dual powers, moving the subtle potentialities of heaven and earth ; resulting in a state of dire calamity. Your Imperial Majesty's virtue is on a par with heaven and earth ; while your lustre resembles that of the sun and moon. Your favours reach to the fowls of the air and the beasts of the forest ; while your permeating benevolence extends even to vegetable life. Should one man, through hunger and cold, be cut off before reaching his natural term of life, you pity him from your very heart.

“ Now in the central empire there is not even the alarm of a dog barking. Should your Imperial Majesty's mailed troops be sent to die in exile they will leave their bones exposed to the sun and dew in the open plain, or drenched with showers in the mountain ravines, while the people in the border cities shut their gates early and open them late, not knowing in the morning that they will be alive in the evening. Your servant Gan is of opinion that your Imperial Majesty should gravely ponder this matter. Many of those who are not familiar with the form of the southern territory, say the

population of Yuē is numerous, and the troops are strong; while they are clever at opposing dangers at the border cities.

“When the state of Hwae-nan was intact, many of the inhabitants were border officials. Your servant has heard that Yuē is very different from China. The country is bounded by lofty mountains, where all human traces disappear, and are to carriages impassable, natural barriers between the inner and outer lands. In order to reach China, they must descend the Ling river; the rocky banks of which are abrupt and precipitous, and boats get broken on the boulders lying about in it. Large boats cannot be used on it to carry down provisions. If the men of Yuē wish to raise an insurrection, they must first cultivate the arable land near their defensive boundary, accumulate a store of provisions, and then advance to cut down timber and build vessels. By securing and guarding the border cities, truly we can repel them. When the men of Yuē proceed to cut down timber, we can advance suddenly, seize and burn their accumulated stores; and though it were all the Yuē tribes combined, what could they do against our border cities? Moreover the men of Yuē are feeble, and physically inferior. They cannot fight on dry land; nor have they carriages, cavalry or bowmen. Still it would be imprudent to enter their country; for it is protected by dangerous passes, and Chinese are unable to bear the climate. Your servant has heard that the mailed troops of Yuē are not less than several hundred thousand in number; so that it would require five times that number to attempt an invasion, without including the drawers of carriages or bearers of provisions. The south country is hot and moist, and towards summer the yellow fever prevails.

“Exposed to the sun and dew, living on the water, surrounded by venomous serpents, and suffering from pestilential malaria, before a sword has been drawn, two or three tenths of the troops will have died of sickness. Even should the whole Yuē nation be taken captive, it will be but a poor compensation for the losses sustained.

“Your servant has heard the common report, that the brother of the King of Min Yuē killed the latter. He considered that when his brother was assassinated, the people would have no other to whom to render allegiance. Should your Imperial Majesty wish to bring him to settle in China, and cause the principal Ministers to institute an investigation, and by an exercise of virtue, attract others by rewards, this would certainly be leading the young, and supporting the aged, that they may turn towards your sacred virtue. If your Imperial Majesty does not wish to use him, then take up the broken succession; preserve the lost kingdom, establish a king and marquises, and so sustain the Yuē nation. In such case they will certainly send hostages, and become border vassals, with the hereditary onus of presenting tribute. Let your Imperial Majesty conciliate the outside nations, by conferring a square inch seal with a twelve foot ribbon; then without the service of a single soldier, or blunting a lance, dignity and virtue will prevail in concert. Now if troops are sent into the country, this will certainly

create an alarm ; for the authorities will think the object is to kill and exterminate ; and they will certainly flee like pheasants and hares to dangerous and inaccessible places among the hills and forests. If the forces turn back and leave them, they will again assemble in communities. But if the troops remain and hold the country, then for many years to come they will be wearied with inaction, and the provisions will utterly fail ; the men will be unable to plough, reap, or plant ; and the women will be unable to spin and weave ; able-bodied men will be employed in the army, and the aged and feeble will be occupied carrying food ; householders will be without the means of subsistence, and there will be no provision for travellers ; the people suffering from the miseries of military occupation, vast multitudes will certainly flee into exile ; and in the pursuit an incalculable number will be put to death ; while brigandage and robbery will be the certain result. Your servant has heard it said by old people, that in the time of the Ts'in when the Protector Too Tsen was sent to attack Yuë, the Inspector Luh was also sent to construct bridges and open up roads ; but the people fled to the recesses of the mountains, and deep among the forests ; so that they were never assailable. The army that remained formed a colony and kept the vacant country. After a long period of idleness, when the troops were worn out and enervated, the Yuë men emerged from their retreats and attacked them ; and the Ts'in army suffered an inglorious defeat. Deficiencies were made good from the border guard. At this time there was a general commotion at home and abroad ; and the people were ruined and dispersed. Travellers never returned, and wanderers did not come back. All, deprived of the means of livelihood, followed each other into voluntary exile ; and multitudes became robbers and brigands. At this time the distress in Shantung began to be formidable. Such is the state of things referred to by Laou-tsze, where he says :—‘ Where an army is located, brambles and furze abound.’ Military affairs are inauspicious. When there is urgent distress in one quarter, similar events take place on all sides. Your servant is apprehensive that the cause of insurrections, and the rise of licentious practices, originate in times like these. The ‘Book of Changes’ says :—‘ Kaou-tsung attacked the Demon region, and in three years subdued it.’ The Demon region was inhabited by a petty barbarian tribe. Kaou-tsung was the most prosperous Emperor of the Yin dynasty. If a prosperous Emperor could only succeed in conquering a petty tribe after a three years’ campaign, that surely implies that the employment of the military must inevitably be a serious matter. Your servant has heard it said that the Emperor’s troops can invade, but they never fight, so that there is no reliance to be placed on them. Such are those sent against the Yuë, who expose themselves to death, if happily they may succeed in turning back the advance ranks of the line. If there are any incompetent hands among the fuel carters, these are sent to join the corps ; so that, although they should even obtain the head of the King of Yuë, your

servant is still of opinion that it would be to the shame of the great Han. Your Imperial Majesty's realm is bounded by the four seas; your house dominates over the nine provinces; the eight preserves form your park; and the Keang and Han rivers are your waters. The entire population are all your ministers; and the multitude of menials are ready to perform every grade of official service. The revenue is sufficient to meet the exigencies of the Imperial retinue. You enjoy the favour of the spiritual intelligences, maintaining holy principles, wearing the hatchet-embroidered garment, and using the hatchet-ornamented screen. Leaning on the jade elbow-stand, facing the south, you hear and decide causes; and when you issue orders, there is a universal response from every part of the empire. Your Imperial Majesty's generosity overshadows and bedews your subjects; causing the great body of the people to live in peace, while joyfully pursuing their avocations; so that the permeating influence will be transmitted to their children and descendants through ten thousand ages, extending to endless generations. The peace of the empire is like the T'ae mountain, manifest on all sides. The territory of the barbarians is not worthy of one day's consideration; much less to weary out the men with horselike service. It is said in the 'Book of Odes' (Part III. Book iii. Ode 9, verse 6):—

‘The King's plans were reliable and complete,
And the region of Seu came to terms.’

This implies that the King's plans were all-comprehensive; and were joyfully adopted in the most distant regions. Your servant has heard that when the husbandman diligently pursues his vocation the superior man obtains the means of support.

“The stupid speak, but it is for the wise to discriminate. Your servant Gan being privileged to keep the border, interposes personally to screen you from mean men. When an alarm is raised at the border, some prefer death, rather than finish their natural term. Such stupid people are not to be classed among loyal subjects. It is the opinion of your servant Gan that an army of a hundred thousand men will effect no more than the diplomacy of a single envoy.”

About this time, the Chinese troops having crossed the mountains, Yu-shen the brother of the King of Min Yuē killed the King, and tendered his submission; when the Chinese troops suspended further action. The Emperor commended the advice of the Hwae-nan Prince, and extolled the merit of the generals. He then charged Yen Ts'oo to publish the Imperial intentions, and to make them known in Southern Yuē. The King of Southern Yuē made obeisance, saying:—“The Emperor graciously raised an army to chastise Min Yuē; but in consequence of the death of the culprit, they were unable to report a victory.” He then sent his eldest son in Yen Ts'oo's suite, to wait on the Emperor. When Yen Ts'oo returned, he communicated with

the Prince of Hwae-nan, saying:—"When the Emperor consulted the Prince of Hwae-nan, he ordered me to inscribe the following statement on the jade tablet—'I, having succeeded to the lenient virtues of the former emperors, rise in the morning, but am in midnight darkness; my intelligence casting no reflection, obviously because of my deficiency of virtue. Hence, for some years past, the multitude have been afflicted with dearth and disasters. Now insignificant as I am, having been placed over kings and marquises, famine and cold have prevailed among the people within the empire, while the barbarians in the south are encroaching on each other: causing a state of apprehension and unrest on the borders, and inducing in me the gravest fears. Now let the prince take this into serious consideration, and think out some wise plan for an honourable peace, to aid me in my shortcoming. Thinking on the flourishing times of the Three dynasties, when the achievements were limited by heaven, and reached the confines of earth, I feel deeply humbled on account of the condition of the guest tenures. Adopting your counsel, which cannot be excelled, I have sent the Middle Great Statesman Yen Ts'oo to publish my views, and to inform you regarding the affairs of Yuē.' I published the Emperor's views, saying that you, great prince, had sent a military colony; and then forwarded the following memorial regarding the affairs of Yuē:—"Your Imperial Majesty sent your servant Ts'oo to inform the prince about the affair in hand. The prince, however, living at a great distance, and being pressed with business, while the Imperial commission was urgent, I had not the advantage of first consulting with the prince; and thus securing the prince's sympathy in the embarrassments of the Imperial administration; which will be vexations to your Imperial Majesty. Now military weapons are inauspicious instruments; which an intelligent ruler is exceedingly wary of calling into requisition. Yet from the time of the five Emperors and the three Kings, it has never been known that tyranny has been restrained, or anarchy arrested, without military aid.

"The house of Han holds the supreme arbitration of life and death; controlling the destiny of all from sea to sea. In the time of danger, it is looked to to secure quiet. In the time of anarchy, it is appealed to to secure settled government. Now the King of Min Yuē has shown himself avaricious, perverse and churlish; having put to death members of his own family, and alienated his kindred; which are deemed cases of extreme injustice. He has also several times raised troops for the purpose of invasion. The several Yuē tribes, uniting with some neighbouring states, on account of his violent conduct, consulted together secretly, and concocting a singular scheme, proceeded to burn the house-boats at Ts'in-yang; and wished to induce the people of Kwei-ke to follow in the track of their ancestor Kow-tsūen.

"Now it is again reported at the border, that the King of Min has led two nations to attack Southern Yuē. Your Imperial Majesty having adopted a plan for securing the quiet of the people, and

removing danger far away, has sent a man to make the announcement, saying :—

“The whole empire is at peace, succession to the royal dignity must in every case be uninterruptedly continued, and the interests of the people cared for. Annexation of territory is hereby forbidden. If those in office have reason to suspect grasping and avaricious tendencies on the part of any covetously to monopolise the benefits of all the Yuē tribes or in a spirit of insubordination, refuse to receive the illustrious rescript, then there will certainly be prolonged distress in Kwei-ke and Yü-chang. The Imperial army chastises, but does not seek fighting. Why should the people be distressed and the troops exhausted?”

“Two generals were consequently sent to form military settlements at the border, that the resounding echo of the martial display might strike with awe. Before the whole settlement had assembled, however, Heaven disposed the refractory to a better mind. When the King of Min lost his life, an envoy was immediately dispatched, and the military settlement was abandoned; but ere that was completed, agricultural operations were already commenced. The King of Southern Yuē rejoiced greatly at the favour that had been shown him, humbly acknowledged the Imperial clemency, manifested a desire to renew his heart, alter his conduct, and follow the envoy back, to tender his thanks in person to the Emperor. On account of a violent sickness, however, he was unable to carry out his intentions. He therefore sent his son and heir Ying-tse to be an Imperial attendant; and when he gets well, he hopes to prostrate himself in the northern palace. He looks forward to making an acknowledgment of the Imperial generosity at Court. The King of Min maintained an army for eight months, at the Ya-nan mountain, where the men were weary and worn out. Three kings with their forces attacked him in concert; and his brother Yu-shen, taking advantage of his weakened condition, accomplished his tragic plot. Up to the present time, the country is empty and desolate. An envoy was sent, who showing his credentials, requested the people to name a sovereign; but they would not presume to appoint one, and awaited the Emperor's luminous rescript. Thus no part of the enterprise has failed; not a single lance has been brought into service; nor has a single soldier lost his life. The King of Min has answered for his conduct; while Southern Yuē is imbued with awe. The just conduct of the king is made manifest, and the country is preserved in time of danger. This is the result of the profound schemes and far-reaching thoughts of your Imperial Majesty; a consequence that was obvious beforehand. The Emperor has accordingly sent his Minister Ts'oo to make known his views to the prince.”

On this, the Prince of Hwae-nan acknowledged the Emperor's favour in the following words :—“This achievement is really not surpassed by the defeat of the tyrant Kieh by Ching T'ang (B.C. 1767), or the defeat of Tsung by Wän-wang. Your servant Gan presumptuously detailed his crude views; but your Imperial Majesty,

instead of visiting him with merited capital punishment, has sent the envoy to show him the sacred rescript; which your servant Gan had not before heard. Your servant is unspeakably grateful." On this occasion Yen Ts'oo contracted an intimacy with the Prince of Hwae-nan; and on his return to Court the Emperor was greatly delighted. While Yen Ts'oo was waiting without occupation, in dignified ease, the Emperor asked him regarding his ancestral dwelling; to which he replied:—"My family is poor, and is demeaned by dependence on a wealthy friendly relative." In reply to a question from the Emperor, as to what he wished, he said that he desired to be made Governor of Kwei-ke. He was thereupon appointed to that post. No good account having been heard of Yen Ts'oo for several years, a despatch was forwarded to him, saying:—"The Governor of Kwei-ke must have retired to his private cottage, wearied with affairs of duty, or thinking of his native place, or is gone to attend to the official business of some region. Kwei-ke is bounded by the sea on the east; on the south it is in close proximity to the Yuē tribes; and on the north it extends to the great river (Yang-tsze); a broad and roomy land. For a long period no news has been received. Let the reply be according to the 'Spring and Autumn Annals.' Do not adopt Soo Ts'uns' intriguing policy." Yen Ts'oo was alarmed, and presented a memorial excusing his conduct, in which he quoted the "Spring and Autumn Annals," to the effect that:—"The Emperor went to reside in Ching. Not being able to serve his mother, he abandoned his dignity;" adding:—"A subject should serve his prince, as a son serves his parents. Your servant Ts'oo deserves death; but your Imperial Majesty has forborne to inflict capital punishment. I wish to consecrate my three years deliberating on important state affairs." An Imperial rescript granted his request; and he was consequently retained as an Inner Attendant, to compose despatches for strange and unlooked-for emergencies; when he composed a eulogistic poem on public service, in several tens of stanzas. After this, when the Prince of Hwae-nan came to Court, he presented large gifts to Yen Ts'oo, with whom he held intercourse and deliberations. When the Prince of Hwae-nan rebelled, being in communication with Yen Ts'oo, the Emperor treated the latter with leniency, not wishing to inflict capital punishment. Chang Tang-tsang, the Chief of the Palace Guard, said that if Yen Ts'oo, who had free admission to the Inner Palace as a confidential Minister, and yet held such private intercourse with the feudal princes, was not executed, it would be impossible henceforth to carry on the government. Yen Ts'oo was ultimately reduced to the trading rank.

RAG-BUSHES and KINDRED OBSERVANCES.

By M. J. WALHOUSE, Esq., F.R.A.S.

IN a paper on "Non-sepulchral Rude Stone Monuments" which I had the honour to read before the Institute in February, 1877, an allusion to the practice of tying pieces of rag to bushes at spots where persons had been killed, or died in any unusual way, gave rise to some remarks and appeared to excite some interest. I have since collected some more instances, and put together a few observations on the subject, which I now venture to submit.

The meaning and intention of the custom seem sometimes votive and sometimes commemorative, a mark of respect or worship, or an offering to avert evil or show gratitude for benefits received. The earliest instance recorded seems to approach tree-worship, where Herodotus relates (vii, 31) that Xerxes when marching on Greece, encountered in Lydia a plane-tree so beautiful that he commanded it to be decorated with gold robes and ornaments, and left one of his "band of immortals" to guard it. The historian says this was simply on account of its beauty (*κάλλεος εἴνεκα*), but it was more probably an offering to some sacred tree: an object doubtless then, as now, familiar to the Persians in their own country. So, too, the Arabian annalist of the ninth century, Tabari, relates that the people of Najrân in Yemen, every year on a certain day assembled round a large date-tree outside the city, hung it with rich garments, and offered prayers to a spirit that spoke to them from the tree.* From many passages in the classical writers, it will be sufficient to refer to the eighteenth Idyll of Theocritus, where the Spartan virgins are represented hanging lotus-wreaths on a plane-tree consecrated to Helen, there worshipped as a deity, and to the grove sacred to Ceres described by Ovid, in which stood a huge and ancient oak, covered all over with wreaths, garlands, and tablets, memorials of vows and evidences of their powerful effect.†

In Southern India, besides the custom of tying bits of cloth and rags to bushes at spots where men have met with violent deaths, a custom also recently noted by correspondents with our

* Compare Jeremiah x, 3, 4. "One cutteth a tree out of the forest; they deck it with silver and with gold."

† "Stabat in his ingens annoso robore quercus,
Una nemus; vittæ mediam, memoresque tabellæ,
Sertaque cingebant, voti argumenta potentis."

"Metam." viii, 741.

troops in Afghanistan, there is a practice of sticking rags on a certain prickly shrub, the botanical name of which I do not know, but the prickles have a venomous quality and cause a feverish burning, said to be worse at some seasons than others, to avert which bits of rag are stuck on, occasionally covering all the branches, apparently as a propitiation directly to the bush itself, for I could not learn that any spirit was supposed to inhabit it. Again, the tombs of Mussulman saints and holy men, continually met with in all sorts of localities in India, are frequently surrounded with tall upright canes and rods to which are attached streamers of many-coloured rags.*

Another variant, as it seemed to me, of the custom, I once met with in a wild sequestered valley at the foot of the Great Arnemally Mountain-range in Coimbatore, Madras. At its top there is an ancient place of pilgrimage, known as Trimurti, or Trinity, Temple. A stream rushes down a steep mountain cleft, and where it reaches the plain a great broad boulder, some forty feet high, rises from its bed, bearing on one side the indistinct outlines of three personages seated together. Near this, eight stone images are set in a circle, with faces inwards, round a fine granite pillar, and close by are some large champaca and other flower-bearing trees, to the branches of which are suspended scores of native sandals or shoes, some old and worn, some quite new with elaborately worked and ornamented latchets, and some of Brobdingnagian proportions, evidently specially made for the purpose. Pilgrims come from afar to this spot, which just there is the watershed of the Peninsula, and hang up the shoes in evidence of vows accomplished or as thank-offerings for wishes granted; the enormous shoes seem analogous to the huge candles vowed in Catholic times.†

On the Himâlaya Mountains the Mâni or long heaps of stone, that form so remarkable a feature, are often stuck over with flags and scraps of inscribed paper, and in Tartary and Thibet the missionaries Huc and Gabet describe the Oboes, or immense cairns, they often encountered, as surmounted with branches hung over with strips of cloth on which are written verses; one such is figured at page 25, vol. i, English edition. These are evidently propitiatory offerings to the mountain spirits. In

* "The burial grounds (near Bombay) were full of little flags or pennants, like those on a lance." ("Arabia, Egypt, India." Mrs. R. Burton, p. 128.)

† Another variant appears to be a custom of the Gâros, immemorially dwellers in the deep jungle-tracts on the Eastern border of India. Over each path leading into a village a bamboo arch, decorated with tufts of cotton, is at certain times raised to propitiate deities. All who enter or quit the village must pass under these arches. They are as often placed over the door of the house in cases of sickness.

China, pieces of gilded paper are hung upon trees in sacred places, and at periodical times of mourning. Governor Davis describes the whole population of towns trooping out to the hills to make offerings at the tombs, "leaving behind them long streamers of red and white paper to mark the fulfilment of the rites; whole ranges of hills sprinkled with tombs may at that season be seen covered with these testimonials of attention to the departed, fluttering in the wind and sunshine" (Davis's "Chinese," vol. i. c. 8). In remoter Asia and Eastern Europe, Strahlenberg describes the Jakuhti of Eastern Siberia as "hanging all manner of nicknacks" on their sacred trees, "and the Scheremissi by the Volga hanging the hides and bones of cattle on their holy trees "to rot by way of sacrifice in the air" ("Description of Northern and Eastern Europe and Asia," pp. 354, 381). In the Journal of this Institute, vol. ii. p. 120, the same author is quoted representing the idols of the Ostiaks on the Rivers Irtysh and Obi, as "roughly hewn pieces of wood hung over with rags."

Returning to more civilised regions of Asia, the prevalence of the custom in Persia has attracted the notice of travellers for centuries. Sir John Chardin, in his "Travels in Persia, &c., in the Seventeenth Century," often mentions the sacred trees, and in particular describes a very ancient plane in one of the King's gardens at Shiraz, to which the people used to come and pray under its shade, and hang to its branches garlands, amulets, and bits of their garments. The sick, or their friends for them, used also to come and stick lights* on it in the hope to recover health. Sir John adds that such trees are met with everywhere in Persia, and called *dirakht-fazel*, i.e. excellent trees; one sees them, he says, stuck all over with nails for fastening on bits of garments. ("On les voit tout lardés de clous pour y attacher des pièces d'habillements." "Travels," vol. viii. 426-7, ed. Paris, 1811). At Ispahan too he saw another such plane-tree, "tout herissé de clous et de pointes." This brings to mind the "*Stock am Eisen*," the aged trunk, only relict of the sacred grove of heathen days, still, I believe, standing in Vienna, into which every apprentice starting on his *Wanderjahre* drove a nail for luck.† In later times Mr. James Morier, in his "Second Journey through Persia, Armenia, and Asia Minor" in 1810-20, writes (page 239): "Close to the burial-place of a Persian saint grew a small bush, upon the branches of which were tied a variety of rags and remnants of garments. The Persians conceive that

* So still done in Livonia. See "Journal Anthropol. Inst.," vol. iii. 276.

† The Romans drove nails into the walls of cottages to avert the plague; and in Cornwall and Oldenburg a nail driven with certain observances into an oak tree is reported to cure tooth-ache.

those rags from their vicinity to the saint acquire peculiar preservative virtues against sickness, and substituting others, they take bits away, and tying them about their persons, use them as talismans." This idea was not unknown in Europe in connection with holy wells, writing on which Brand, in his "Popular Antiquities," refers to a prayer of the Roman Church used for the blessing of clouts in the way of the cure of diseases. Morier, at the passage just quoted, mentions the "handkerchiefs and aprons" brought from the body of St. Paul, which banished diseases and evil spirits (Acts xix, 12) as involving the same belief.* The habit of tying up bits of rag prevails amongst the Mahometans everywhere from India to Palestine, and Captain Conder, in "Tent-work in Palestine" (vol. ii. 233), gives one of the most recent notices of it, observing: "Amongst the peculiar religious institutions of the country are the sacred trees, generally oaks or terebinths,† with names taken from some Sheikh to whom they belong; they are covered all over with rags, tied to the branches, which are considered acceptable offerings."‡

In Africa notices of the custom are more scanty. Mungo Park ("Travels," p. 65, 8vo. ed.) has a curious account, quoted also by Brand, of a great tree called Neema Taba, "decorated with innumerable rags or scraps of cloth," which persons travelling by had tied to its branches, and none now "presumed to pass without offering something." Park himself, as though emulating Xerxes of old, suspended a handsome piece of cloth on one of the boughs. I do not remember that any of the more recent illustrious band of explorers, from Livingstone to Stanley, mentions having observed the custom. In Northern Africa, however, Colonel Keatinge noticed "rags, potsherds, and the like trash" strung upon wild olive-bushes near Mogadore, and on being unable to obtain an explanation, remarks "a traveller will see precisely the like in the West of Ireland, and will receive

* See, too, 2 Kings xiii, 24, where the touch of Elisha's grave-clothes revives a dead man. In mediæval times, the clothes of saints daily worked miracles, and in 1846 the sight alone of the Holy Coat at Treves cured many afflicted.

† The tree planted by the Patriarch Sheikh Abraham (Genesis xxi, 33) was *eshel*—an oak or terebinth.

‡ The accounts of Chardin and Morier are curiously confirmed by Mr. Eugene Schuyler, who in his "Turkistan," published in 1876, says of the tomb of Zangata, the patron saint of Tashkend, "that it looks shabby from the rams' horns and long bits of dirty rag which every pilgrim has felt it necessary to tie there on some stick or tree. Old trees, especially old mulberry trees, seem greatly venerated throughout Central Asia, and the older and deader they are the more bits of rag they have stuck on them, which are symbols of sacrifice" (Vol. i, 138).

Mr. J. Romilly Allen also informs me that in 1874 he observed by the high-road which crosses the Elburz Mountains by the Khorzam Pass, at a height of 7,000 feet above the sea, a great number of thorn-bushes covered with rags of every colour, which had been left by the muleteers

an equally satisfactory account upon the subject" ("Travels in Europe and Africa," p. 186), but this again was in a Mahometan-peopled region.

In the New World there is evidence of the existence of the custom from the North to the extreme South. Sir John Lubbock ("Origin of Civilisation," pp. 196-97) adduces (1) Sir J. Franklin's description of a sacred tree on which the Cree Indians had hung strips of buffalo flesh and pieces of cloth; and (2) Mr. Tylor's account of the great cypress in Mexico, its branches covered with hundreds of locks of coarse hair, teeth, bits of coloured cloth, rags and morsels of ribbon, "probably so decorated long before the discovery of America;" and (3) lastly, Mr. Darwin's notice of the remarkable single-standing sacred tree in Patagonia, revered by all the Indians, with numberless offerings, "such as cigars, bread, meat, pieces of cloth, &c.," suspended to its branches by threads.*

In Australia the custom does not appear to exist, nor yet in the South Sea Islands, unless there is something analogous in the consecration by *tabu*, "which is generally marked by small white flags or other signs," stuck about tabued property (Jarves' "History of the Sandwich Islands," p. 56). Fruit trees, groves, &c., are also marked as *tabued* by charms of various sorts hung upon them.

In Europe the rag-tying habit is and has from time immemorial been widely spread; instances of its prevalence throughout the British Islands are given in numerous works. Brand in his book on "Popular Superstitions" speaks of rag-bushes existing in his day near Newcastle-upon-Tyne, and adduces a number of instances in Wales and Scotland. These bushes were always associated with holy wells, where sick persons bathing or drinking left bits of their clothing tied to adjacent bushes as offerings; just as in Persia devotees tie rags to bushes near holy tombs. In Ireland the custom probably still exists.

In the Journal of this Institute, vol. iii, 276, there is a curious notice of the survival of tree-worship in Esthonia in our own times; and Boyle, in his "Historical and Critical Dictionary," quotes a passage from a work on "Idolatry" by Rubenus, a travelling friar, who in 1588 passed through the sacred woods of the Esthonians, and saw there "a pine-tree of extraordinary height and bigness, the branches whereof were full of divers pieces of old cloth, and the roots covered with bundles of straw.

* Over an Indian grave by the Fraser river in British Columbia "the dark green blankets which had covered the Indians in life now fluttered in the wind, weird-looking ensigns, waiting to be claimed by the spirits of their departed owners, and on a large branch of the nearest tree hung the heads, hides and hoofs of the horses which had carried them through life" ("The Sea of Mount- tains," by M. St. John, vol. ii, 135).

On asking the meaning he was told that the inhabitants adored the tree, and that the women, after a safe delivery, brought thither the bundles of hay" (English Translation, 4th vol. folio, *sub voce* "Rubenus"). Being at Freybourg, in Switzerland, in September, three years ago, and descending the precipitous street to the old part of the town, at the bottom of the deep romantic gorge of the Saarine, where the antique houses and embattled wall with its feudal watch-towers give to the scene a more old-world aspect than elsewhere in Switzerland, I found the market-place *en fête*, and in its centre an extraordinarily tall straight fir-tree being raised, with all its branches lopped for half their length, and decorated with an infinity of flags, pennons, and festoons of moss and flowers. I found that this was done annually in commemoration of Duke Berchthold de Zähringen, the half-legendary founder and patron of Freybourg in the twelfth century, a mode of showing honour not possibly derived from the sacred rag-trees, and tending to support Keysler's opinion that the custom of the Maypole took its rise from the desire of the people to do honour to their king, who, seldom appearing at other times, made at that season a solemn procession to the Great Assembly held in the open air. Such indeed may have been the origin of "the tall Maypole that o'erlooked the Strand,"* not far from this Institute, "that stinking idol" as the old Puritan writer (Stubbs) styles it, "bound about with strings from the top to the bottom, and with handkerchiefs and flags streaming on the top." So that the great stationary Maypoles, as well as the smaller still carried about, decked with ribbons and gay shreds, may be remotely connected with rag-bearing trees and bushes.† Once, too, when wandering about St. Blaisen in the Black Forest, where the vast Benedictine Abbey recalls so much learned labour, I happened to turn up a narrow picturesque ravine that ran inwards laterally from the fir-clad valley; after penetrating this for some distance, I observed a narrow path, seeming well-trodden, slanting upwards from the bottom. On following this for about half the ascent, it passed under a rocky wall in which a small niche had been hollowed, containing a plaster group of the Crucifixion with the Virgin and St. Mary, defended from the weather by a pane of glass let in. Immediately opposite, on the other side of the path, stood an aged thorn-bush, from which more than one stock had evidently decayed, and on the remaining

* Pope, "Dunciad."

† A very primitive form of the Maypole seems to be the customs of the Gāros in Eastern India, recorded by Colonel Godwin Austen ("Journal Anthropol. Inst.," vol. ii, 392.) of setting up variously carved and peeled posts, to avert sickness or ill-luck, and bamboo stakes, split at the head and opened out to carry offerings.

stem and branches, fifteen or twenty pieces of rag and cloth, all some shade of red, were tied. I could hardly doubt that this was a primitive mark of respect transmitted from Pagan times to Christian usage.

The custom of tying rags and shreds to bushes near wells and springs reputed salubrious, once common over England and Scotland, is still frequent in France. One instance within my knowledge is at Wierre-Effroy, about fifteen miles north from Boulogne, where the water of St. Godeleine's well is held to be most efficacious for ague, rheumatism, and all ailments of the limbs; and a quantity of crutches, bandages, pieces of rolls of rag, and the like are hung upon the neighbouring bushes as thank-offerings and testimonies of recovery; other springs in the neighbourhood are famous for curing ophthalmia, &c. Perhaps it may be too bold to think that in Boulogne itself may be seen a signal instance of the same custom, transformed indeed in manner and manifestation, but arising from the same motives. Few continental churches are more familiar to the English than the Cathedral of our Lady of Boulogne, and many may have wondered at the countless offerings in the shape of hearts, which, sometimes homely, often costly in design and material, stud the walls of the stately church, and hang upon the sides of the splendid chancel that encloses the exquisite marble group of the Virgin in the miraculous boat. The Sacred Heart is now a favourite symbol of popular devotion; and in gratitude for inward healing and consolation, is offered and suspended in a thousand churches like shreds upon bushes by the holy wells. To such heights may even a common bush and dirty rags be lifted and transfigured by spiritual enthusiasm.

Another variation, doubtless from the same origin, may be seen in the custom prevailing all over Europe, as once in England, of offering imitation models of crippled or diseased limbs at shrines of reputed healing efficacy, either in hope of a cure, or in gratitude for health regained. Great concourses of the sick and maimed come from afar with these objects, as Heine writes in his pathetic poem of "A Pilgrimage to Kevlaar":—

" And whoso a wax hand offers,
His hand is healed of its sore;
And whoso a wax foot offers,
His foot will pain him no more."

No more remarkable instance of a blending of all these customs exists than the shrine of Notre Dâme de la Garde, venerated by seafaring men throughout the Mediterranean, where the Black Virgin looks down from her lofty chapel over the town and harbour of Marseilles. The interior presents a

perfect forest of *ex voto* offerings suspended on the walls and from the roof,—cast off crutches, models of limbs, anchors, fish, and of vessels, ostrich eggs, pieces of rope and rigging, and endless pictures commemorating deliverances from storm, battle, accidents by land, water, sickness and imprisonment,—“*memores tabellæ*,” as multitudinous as ever clustered round the mythic Thessalian oak in the grove of Ceres, or were hung, with drenched garments, in the sea-god’s temple.*

The origin and development of all these observances seem traceable to the rag-bushes and rag-trees, common now, and in all recorded ages, in every quarter of the Old and New Worlds. The beginnings of a custom so universal and so ancient may be due to the impulse, especially strong in rude untaught humanity, to make *some* offering or recognition, however trifling, to an apprehended supernatural power or presence, in token either of respect or of petition for something desired, or of acknowledgment for a benefit received. Travellers in deserts and waste countries, when passing some sacred or haunted spot, with little that could be easily spared to offer, might hold shreds torn from garments the readiest means of showing some mark of recognition, and leave them as substitutes for the complete garments and better gifts that custom would otherwise have demanded. Poor pilgrims, journeying wearily from afar, might come to regard a rag or thread, or crooked pin, a sufficient remembrance and representative of the offerings due to the spring or tomb whence they expected relief. Partly from necessity, and partly from changes of fashion and feeling, any trivial objects ready at hand—horns, bones, tufts of hair, shreds, and the like—might be used as substitutes, and continued as survivals, of more valuable gifts; so there have been ages when costly offerings were made at funerals and buried with the dead, but these have always had a tendency to change and lessen in worth, and at last to be continued in imitations or trumpery substitutes. Thus inferior pottery, evidently made for the purpose, is often found in barrows of an epoch when far better earthenware was manufactured, examples of which are also found buried; and the Chinese, who once offered gold vessels and ornaments at ancestral tombs, are now content to make them in gilt paper. Indeed, there is a custom general throughout China of offering mock food and mock garments to ghosts, especially such as have left no relations, or whose

* “*Me tabula sacer
Votiva paries indicat uvida
Suspendisse potenti
Vestimenta maris Deo.*”

“*Horat.*” lib. i, 5.

kindred are too poor to provide the usual offerings, but who, if neglected, are apt to be malicious, cause epidemics, and do much harm. On the 17th of the 7th month, a ceremony is very generally observed, called "Appeasing the burning mouths," which consists in putting out stale food and cakes and worn-out clothing, with invitations above to the "Honourable Homeless Ghosts." In the same way, with regard to rag-bushes, particularly at spots where persons have died by violence, it is conceivable the shreds may be survivals of garments and offerings once left for the shivering angry ghost.

It may seem extravagant to surmise that a vestige of an analogous custom may be detected in pre-historic times, though it is natural to look there for the beginnings of immemorial observances. Explorers have often been surprised at the immense amount of broken pottery found mixed with the mould in barrows and ancient graves. Canon Greenwell, in his exhaustive work on British barrows, often refers to this, remarking on the very large quantities of potsherds met with, which certainly could not have found their way into the barrows accidentally, but seem as if they had been scattered about when the mound was being built. Such pottery is always broken, apparently made for the purpose, and, he thinks, must have symbolised some religious ideas (*see* pp. 11, 101, 221).

Perhaps this may be illustrated by a passage in Mr. Stanley's marvellous "*March across the Dark Continent*," where at a spot before unseen by Europeans he writes (vol. ii, 453): "Close to our camp was a cemetery of a village of Mbinda. The grave-mounds were neat, and by their appearance I should judge them to be not only the repositories of the dead, but also the depositories of all the articles that had belonged to the dead. Each grave was dressed out with the various mugs, pitchers, wash-basins, tea-pots, glasses, gin, brandy, and beer-bottles. The various articles thus exhibited, especially the useful articles, had all been rendered useless,"—like the broken pottery of the barrows and the torn shreds of the rag-bushes. A quaint drawing of the graves accompanies the account, and is further suggestive of the analogy. It is remarkable that at a recent meeting of this Society, Mr. Seeböhm described a similar custom existing in the remote regions of Central Siberia, where after a funeral feast the drinking vessels are broken and thrown upon the grave.

To conclude, such is the vitality of primitive customs, that though rag-bushes have disappeared from our springs and wells, one may venture to think they have of late years re-appeared amongst us in another guise; and that the Christmas Trees, dressed out with lights, ribbons, streamers, and all sorts of gay

and pretty trifles, round which such joyous ceremonials are held, may be derived, like the Christmas holly and misletoe, from ages and observances long passed away, and are but changed survivals of the Pagan rag-trees.

DISCUSSION.

MR. KEANE was able from personal observation to confirm Mr. Walhouse's remarks touching the persistence of these practices in various parts of Ireland and elsewhere. He drew attention to several analogous customs still prevalent, especially in Munster, and acquiesced in the view that many of these superstitions had their origin in remote, possibly even pre-historic times. But he did not think it would be always safe to build any arguments for the affinity of races on the prevalence amongst them of such customs. These things may in some cases have easily been passed on from tribe to tribe, and so have ultimately made the round of the globe, without at all obliging us to assume any common relationship between peoples now found practising them. Other customs again were doubtless the spontaneous outcome of the deeply-rooted sentiment, universal in the infancy of mankind, which has been expressed by the term *Anthropomorphism*; hence may well have grown up in many centres independently of any ethnical kinship. He dwelt on this point because of the disposition often shown by ethnologists to seize upon such common social traits as so many proofs of racial affinity. Of all the points usually urged in favour of such affinity—*physique*, language, mythology, tradition, superstitions, practices—the last was perhaps the least to be relied upon.

MR. R. B. HOLT, M.R.S.L., referred to the presence of rags on a tree near San Antonio in Guatemala. The explanation of this form of decoration is that when a male child is born to an Indian, the father hastens to this secluded spot, and fastens up the strange offering to the woodland deity. This is supposed to ensure strength to the child, and enable him in future years to ascend the Cuesta. (Whetham's "Across Central America," page 100.)

MR. HYDE CLARKE said, in confirmation of Mr. Walhouse's paper, that in those parts of Asia and Africa where he had seen rags on tombs and bushes, they were applied indifferently by Mussulmans and Christians, and that any such object was venerated by either. It was not peculiar to any religion nor regarded as sectarian.

THE JOURNAL
OF THE
ANTHROPOLOGICAL INSTITUTE
OF
GREAT BRITAIN AND IRELAND.

APRIL 29TH, 1879.

E. BURNET TYLOR, Esq., F.R.S., *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The Election of the following new Members was announced.
EDMUND KNOWLES BINNS, Esq., and W. S. DUNCAN, Esq.

The following presents were reported, and thanks were ordered to be returned to the respective donors :—

FOR THE LIBRARY.

From the SOCIETY.—Transactions of the Asiatic Society of Japan.
Vol. VII. Part 1.

From the AUTHOR.—“De la Suture medio-frontale.” By M. Gustave Calmettes.

From the BERLIN ANTHROPOLOGICAL SOCIETY.—Zeitschrift für Ethnologie. No. 5, 1878.

From the EDITOR.—The Science Index. Vol. I, No. 1.

From the EDITOR.—Revue Internationale des Sciences, No. 4, 1879.

From the ACADEMY.—Atti della R. Acad. dei Lincei. Vol. III, No. 4.

From the ASSOCIATION.—Transactions of the Social Science Association, 1878.

From the EDITOR.—Index Medicus. Vol. I, No. 3.

From the SOCIETY.—Proceedings of the Society of Antiquaries.
Vol. VII, No. 5.

From the EDITOR.—Matériaux pour l'histoire de l'Homme. Vol. X, No. 1.

From the EDITOR.—Revue Scientifique, Nos. 39 to 43, 1879.

The following papers were read:—"Notes on Analogies of Manners between the Indo-Chinese Races and the Races of the Indian Archipelago." By Col. HENRY YULE, C.B. "On Relationships and the Names used for them among the Peoples of Madagascar, chiefly the Hovas; together with Observations upon Marriage Customs and Morals among the Malagasy." By the Rev. JAMES SIBREE, Junior.*

On the OSTEOLOGY and AFFINITIES of the NATIVES of the ANDAMAN ISLANDS. By WILLIAM HENRY FLOWER, LL.D., F.R.S., P.Z.S., V.P. Anthropol. Inst.,† &c.

THERE are few people whose physical characters offer a more interesting subject for investigation to the anthropologist than the native inhabitants of the Andaman Islands.

Purity of type, due to freedom from mixture with all other races for an extremely long period owing to their isolated position and their inveterate hostility to all intruders on their shores, and exemplified in their uniformity of physical characteristics, is to be found among them, perhaps in a more complete degree than in any other group of mankind. The type, moreover is an extremely peculiar one, presenting a combination of characters not found in any race of which we have at present materials for a satisfactory comparison. It is indeed probable that the more or less mixed and now scattered fragments of Negrito populations found in the interior of various islands of the Indo-Malayan Archipelago, and even upon some parts of the mainland of Asia, may have been derived from the same stock, but the special interest of the Andamanese consists in the fact that they alone of these diminutive black, woolly-haired people occupy the whole of the small islands on which their ancestors have dwelt from time immemorial, or rather did so occupy them until the coming upon them of the English in 1857.

That a certain admixture from other races occasioned by intentional visits, or accidental wrecking of vessels on their coasts, and absorption of some portion of foreign element thus derived into the native population may have taken place from time to time, cannot be denied, but it is questionable whether this has been sufficient to affect materially the physical characters of the majority. Although most recent and carefully made observations, especially when supported by osteological and

* *Ibid* pp. 35-50 in the present volume.

† Read June 24th, 1879.

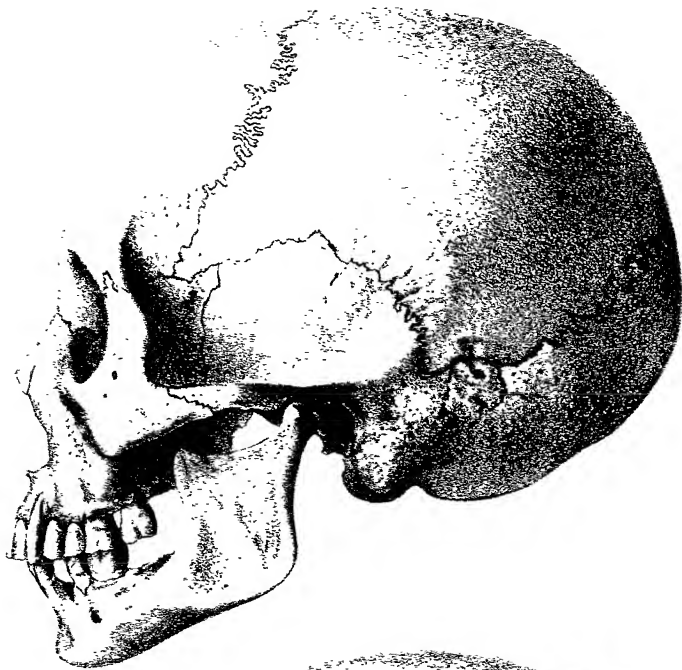


Fig 1



Fig 2

J. Smith del.

Harbert sculp.

ANDAMANESE CRANIA.

Fig 1



Fig 2



J. Smith del.

H. Carter imp.

ANDAMANESE CRANIA.



Fig 1

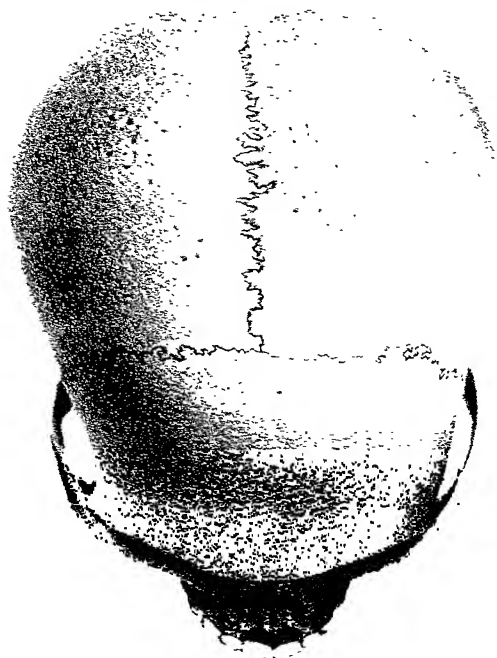
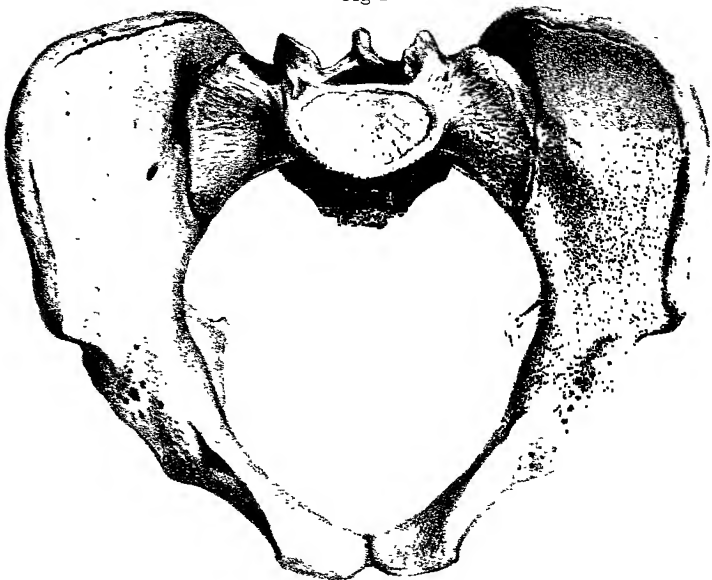


Fig 2

Fig 1



Fig 2



photographic evidence, tends to confirm the view that a striking uniformity of type is prevalent among the Andamanese, we cannot ignore the statements of many travellers, and even residents in the islands to the contrary effect, among which I may cite those of St. John,* F. Day,† and General H. Man.‡

I have no means at my disposal for solving this difficulty, but would earnestly recommend it to the attention of residents in the islands, the more especially as no time must be lost in prosecuting such inquiries. The presence of as many as 7000 Indian convicts, with the necessary attendant foreign population, must in a very short time work a complete moral and physical change among the natives of the islands, if it does not, as is most probable, lead to their utter extinction.

The fact should not be forgotten that the material evidence upon which the view of the uniformity of the Andamanese is based has been derived mainly from natives of the vicinity of the English Settlement at Port Blair, and that it is possible that when more extended collections and observations are made, the statements just referred to may receive corroboration or explanation.

A large number of works, memoirs, and notices have been devoted to the Andaman Islanders, chiefly relating, however, to their general history and social customs. Reference to most of these will be found in the excellent and, for the date at which it was written, exhaustive memoir entitled "*Etude sur les Mincopies*,"§ by M. de Quatrefages, published in the "*Revue d'Anthropologie*," tome i, 1872. Of those published since, none have given any information regarding the osteological characters, which are the special subjects of the present communication. I may, however, refer to two very interesting papers which have seen the light through the medium of our Institute, and which will be found in the pages of our Journal, viz. : "On the Andamans and Andamanese," by G. E. Dobson, "*Journal Anthropological Institute*," vol. iv, p. 457, and "On Mr. Man's Collection of Andamanese and Nicobarese Objects," by Major-General A. Lane Fox, "*Journal Anthropological Institute*," vol. vii, p. 434.

Our present knowledge of the osteology of the Andamanese is derived from the somewhat brief description of a skeleton by Professor Owen||, from an account of another skeleton and

* "*Trans. Ethnol. Soc.*," vol. v, p. 45.

† "*Proc. Asiatic Soc. of Bengal*," 1870, p. 155.

‡ Supplement to Dr. Barnard Davis's "*Thesaurus Craniorum*," p. 69.

§ "*Mincopie*," a name first applied to the Andamanese by Lieut. Colebrooke. is often used in European literature, but does not seem to be known to the islanders themselves.

|| "*Brit. Assoc. Reports*," 1861, also (without figure), "*Trans. Ethnol. Soc.*," vol. ii (n.s.), 1867, p. 34.

notices of several crania by Dr. Barnard Davis,* a description of two crania by Mr. Busk,† and of two by M. de Quatrefages.‡

The materials upon which the observations which follow are based, are far more abundant than any which have hitherto been brought together, and are, I trust, sufficient to draw with safety some general conclusions as to the physical characteristics of the race. Perhaps when still larger numbers of skeletons are examined, some of the statements and average measurements and indices will have to be modified, but probably not in any essential degree.

These materials consist of nineteen more or less complete skeletons of adults, of which nine belong to the male, and ten to the female sex. Thirteen of these are in the collection of the Royal College of Surgeons, ten having been presented by Surgeon-Major Joseph Dougall, M.D., whose recent death from typhoid fever, while in discharge of his duty as Senior Medical Officer at the Andaman Islands, science has much reason to deplore. One was received in exchange from the India Museum at Calcutta through the courtesy of Dr. J. Anderson, and two were presented by General Man, at the request of my friend Mr. J. R. Mummery. Of the other six skeletons, two are in the British Museum, one being that which was brought to this country in 1861 by Dr. J. Mouatt, and described by Professor Owen; the other was presented in 1865 by Dr. J. Ingle. Two others in the collection of the University of Oxford have been most liberally placed at my disposal by Professor Rolleston, and for two more I am indebted to the kindness of Dr. Allen Thomson.

The crania that have been personally examined have amounted to nearly thirty, but of some, circumstances have only allowed of a few notes being taken; others are too young to be included in the averages; but of twenty-four I have been able to obtain complete measurements. These include fourteen belonging to the Museum of the Royal College of Surgeons, two belonging to the Middlesex Hospital Museum (formerly described by Mr. Busk), three in the British Museum, two in the Oxford Museum, two belonging to Dr. Allen Thomson, one lent by Mr. Valentine Ball, and one in the Museum of University College, London, for the loan of which I am indebted to Professor Ray Lankester.

Stature.

Although, with one exception, the skeletons are not articulated, they afford some evidence as to the size and amount of variation

* Supplement to "The-saurus Craniorum," 1875.

† "Trans. Ethnol. Soc.," vol. iv (1866), p. 205.

‡ "Etude sur les Minceopies." "Revue d'Anthrop.," tome i, 1872.

in height of the two sexes of the Andamanese. These people have always been regarded as among the smallest of human races. St. John gives their average height as 5 feet. Dr. Charles Smith, from 4 feet 10 inches to 5 feet for the males, and under 4 feet 10 inches for the females. Dobson saw none over 5 feet 4 inches, and was especially struck by the remarkable contrast between the size of the males and females. With our own race it is usual to estimate the height as bearing the proportion to the length of the femur, as 1000 to 275. This of course is only an average, subject to very considerable individual variations. Wishing to ascertain whether the same rule might be applied to the Andamanese, I first calculated on this basis the probable height of the skeleton (a female), which is mounted in the Museum of the College of Surgeons. Taking the mean length of the two femurs at 368.5 millimetres (the right being 367 and the left 370); the height, on this calculation, ought to be 1340, which is only 20 millimetres more than the skeleton actually measures (*i.e.* 1320 = exactly 52 inches), or as nearly as possible what the real height of the person would be when living. Such being the case, it may be assumed that we shall not be greatly in error in applying the same rule to the other skeletons. Taking the males first, the average length of the femurs is 398.7 millimetres, the maximum 442, the minimum 378, which gives for the stature an average of 1448, or exactly 4 feet 9 inches, a maximum of 1600 or 5 feet 3 inches, and a minimum of 1385 or 4 feet 6.5 inches. The tallest man is the one first brought to this country by Dr. Mouatt, and it should be remarked that he very considerably exceeds any of the others; the next largest femur being only 410 millimetres.

The average length of the femur of the females is 378.2 millimetres, the maximum 410, the minimum 358, which would give an average height of 1375 or 4 feet 6.1 inches, a maximum of 1481 or 4 feet 10.3 inches, and a minimum of 1302 or 4 feet 3.2 inches. Only one female, that belonging to the Oxford Museum, exceeds the average of the men, and only one of the men is as low as the average of the women.

I do not think that these measurements are sufficiently numerous, or the calculations on which the results are based sufficiently reliable, to give a true average of the height of the sexes, but they probably give fair approximations and are interesting as corroborating the view generally entertained of the diminutive proportions of the race.

Though small, there is nothing about the bones which indicates degeneration or debility. They are well-proportioned, fairly stout for their length, and the processes and surfaces for

the attachments of muscles well marked, in some cases very strongly so.

Cranium.

When a large series of crania of Andamanese are placed together, their wonderful similarity cannot fail to strike the observer. In no other race with which I am acquainted could be found in such a series—which, it must be remembered, was not selected for any particular object, but consists of all available specimens, collected from various sources—so little diversity either in size or general conformation.

Not, however, but what they do all present individual differences, which appear more marked the more attentively they are studied. After having had twenty-four skulls in my room for a few days, repeatedly examining, handling and measuring them, the special characters of each became so distinctly revealed, that I could in a moment recognise each one from the other; as no doubt would be the case with the living individuals of the race, whose general similarity at first sight has struck so many travellers.

The next, and a very remarkable point connected with them is, that they present a peculiar combination of characters, which distinguish them from the crania of all other people, at least all which I have had an opportunity of examining. It may seem rather a strong assertion to make, and perhaps further experience may cause me to modify it, but my present impression is that I could never fail to recognise the skull of a genuine Andamanese as being such, and that I have never seen a skull from any other part of the world that I should assign to a native of these islands. It is possible, indeed most probable, that other Negritos may have skulls exactly resembling those of the Andamanese, but none of them have as yet come under my observation. The skull of a Negrito or Até, from Panay in the Philippines, figured by Dr. Barnard Davis ("Thesaurus" p. 301, fig 84), appears very like one, though I cannot say that this is the case with that from Luçon, in Quatrefages and Hamy's "*Crania Ethnica*," Plates XIII, XIV, and XV.

Crania which have not arrived at full maturity have been excluded from the series of twenty-four from which the measurements are taken, though they have been used for certain other observations, in which complete development is not an essential. I have, however, although with some misgivings, as contrary to the practice usually followed, included one, in which the basilar suture is not firmly closed—the female skull belonging to the Middlesex Hospital—which appears in all other respects

to have so nearly attained its full development that it seemed scarcely necessary to diminish the number of averages by rejecting it, especially as it is one of those previously described by Mr. Busk.

Of the twenty-four skulls, I assign twelve to males and twelve to females. In most cases there is evidence from other sources, either the presence of the entire skeleton, or the history of the individuals, to attest the sex. In the few cases in which there was no such evidence there has been little difficulty in assigning them to one or the other category. The possession of so many specimens in which the sex is absolutely known, makes it far easier than it otherwise would be to determine the differential sexual characters of the race, especially as these are by no means great.

In regard to size, the general averages give the preponderance, as might be expected, to the males, though there are individual cases in which females are larger than those of the opposite sex. The female heads are nearly all proportionately broader in the parietal region, and in fact they present what may be considered the most typical form of the race in a more marked manner than those of the males. There is but little difference in the bones of the face, supraorbital ridges and glabella, but the mastoid processes are invariably more developed in the males than in the females; and this constitutes the surest character by which to distinguish the sexes. The other differences will appear in the course of the description.

It should be mentioned that none of the skulls present any signs of artificial or of pathological deformation, unless the rather considerable length of the male, belonging to the Middlesex Hospital, be, as conjectured by Mr. Busk, occasioned by early synostosis of the parietal suture.

In general size the skulls may be considered as belonging to the smallest, or nearly the smallest, of any race. The cranial capacity of the males* ranges between 1150 and 1300 cubic centimetres; the general average being 1244; that of the females between 1025 and 1250; the average being 1128.† This difference between the average of the two sexes is expressed by the proportion of 1000 to 907.

This is probably very much the same relative proportion as that which exists between the cranial cavity of the two sexes of the English people; at all events it very closely accords with what is known of their brain weight from the extensive series of observations of Sims, Clendenning, and Reid, quoted by Dr. A.

* Eleven only could be measured. That presented by Dr. Mouatt to the British Museum being in a too mutilated condition.

† Average of twelve.

Thomson in "Quain's Anatomy," those of Dr. R. Boyd,* and those of Dr. Crochley Clapham,† which give respectively the ratios of 89, 90, and 91 to 100; so that 90 may safely be taken as a general average. In the Australians, in the Museum of the College of Surgeons, the proportion is as 89 to 100; in a considerable series of skulls of Italian peasants 87 to 100, in modern Parisians, according to Dr. Gustave Le Bon,‡ the capacity of the female skull differs from that of the male by as much as 857 to 1000.

The average horizontal circumference in the males is 480 millimetres, in the females 462, and the average vertical transverse circumference in the males 410, and in the females 395. For the individual numbers, I must refer to the tables of measurement.

The latitudinal index or relation of the greatest transverse (parietal) breadth to the length (ophryo-occipital) averages, taking both sexes together, 816; they are therefore, as a race, truly brachycephalic. As usual there are individual differences, the lowest index being 767; this is the skull with the closed sagittal suture, belonging to the Middlesex Hospital, described by Mr. Busk. As already mentioned, it has been suggested that this presents an aberrant form, but if so, it is only to a very slight degree, as two other crania, which have the saggittal suture open, and otherwise are perfectly normal, have indices almost as low, viz.: 775 and 778 (*see* Table I). The highest index is 868. Generally speaking, the males have narrower heads than the females, the average index of the former being 805, that of the latter 827; and of the seven skulls of the twenty-four, the index of which falls below 800, six belong to the male sex.

The average altitudinal index (ratio of the basi-bregmatic height to ophryo-occipital length) in both sexes is 775, being 770 in the males and 779 in the females. In only one (Mr. Ball's) out of the twenty-four skulls does the height exceed the breadth, and this only by 2 millimetres, whereas in the frizzly-haired Papuans and Melanesians, with whom the Andamanese have often been associated, the height almost invariably exceeds the breadth.

The general form of the cranium in its most characteristic development as seen in the *norma verticalis* (Plate IV, Fig. 2) is a broad, but by no means regular oval, narrow in front, the sides nearly straight, and rapidly diverging to the parietal eminences, which are situated very near the posterior part of the cra-

* "Phil. Trans." 1861.

† West Riding Asylum Medical Reports, 1873 and 1876.

‡ "Revue d'Anthropologie," Jan. 1879.

nium. The great prominence of the parietal eminences, to which the high latitudinal index is mainly due, is more marked in the female than the male skulls; the latter being usually more regularly oval. The specimens figured (Plate IV, figs. 1 and 2), present two rather extreme forms. The straightness of the outline between the external orbital processes of the frontals and the parietal eminences is due to considerable flattening of the temporal fossæ.

The frontal region is round, smooth, and in horizontal profile, slopes at a very even curve from the nasion to the bregma. The frontal eminences are very little developed. The main characteristic of this region is the complete absence of glabella, and of superciliary ridges. In the older males only is there any indication of these prominences. In the females, as is usually the case, the anterior part of the frontal bone rises more vertically, and turns more abruptly to the horizontal upper surface. The bregma is so situated that when the cranium is placed with the axis of vision horizontal, the auriculo-bregmatic line has always an inclination forwards at the upper end. In Europeans, this line is generally vertical or may fall backwards. The general contour of skull, as seen from the side (*see* Plate II), is as characteristic as is its horizontal outline. Rising gradually and evenly from the face to the bregma, it then continues nearly horizontal to the middle of the sagittal suture, and then falls very abruptly to the lambda, and below this spot curves in rapidly towards the foramen magnum. Although the occipital region is thus greatly curtailed, its contours are finely rounded, and never present any of that absolute flattening or truncation which would indicate interference with its form by artificial pressure. The small development of the cerebellar fossæ and of the lower part of the occipital region generally is one of the most characteristic features of the cranium. This is indicated in the size of the basilar angle,* which averages as much as 28° . In many of the specimens there is a slight transverse depression behind the bregma, distinctly affecting the upper contour of the skull, but this is absent in about half the number. Much more constant is a longitudinal median depression around the posterior half of the sagittal suture, especially at the region of the obelion. In many cases, especially among the females, in which the parietal bosses are large, this is very marked, and gives a heart-shape to the upper surface of the skull when seen in certain positions. More or less flattening of this region is found in almost all.

Seen from behind, the skulls have all a pentagonal form, and

* The angle NBY, Broca, "*Instructions Craniologiques*" (1875), p. 92.

the greatest breadth of the parietal eminences is situated at the junction of the upper and middle third of the height. The degree at which the sides slope out from the base to the parietal eminences, and the difference to which this takes place in the two sexes can be estimated by comparing the average biauricular breadth taken on the squamosal immediately above the ridge running backwards from the zygoma over the meatus auditorius externus, which is 113·7 in the males, and 108·9 in the females, with the maximum parietal, which is 134·9 in the males, and 132·8 in the females, or as 100 to 118·7 in the males, and 100 to 121·9 in the females.

The general surface of the cranium is smooth, and the muscular ridges are little pronounced. The limits of the attachment of the temporal muscles are only feebly indicated, and the occipital curved lines and the inion are in most cases scarcely discernible. Of course there is some difference between the sexes in this respect, but in only one of the males does the inion make any prominence distinctly visible in the side view of the skull. The mastoid process is generally fairly developed, conical and pointed in both sexes, but always larger in the males than in the females. In four of the twelve males do they extend below the level of the condyles, and in one of the twelve females.

In the character of the sutures there is considerable variation, but as a general rule they are between the extremes of great complexity and of simplicity, though the latter condition may be said to preponderate. There are no very marked examples of either extreme in the series. Wormian bones are present in the lambdoidal suture in thirteen out of twenty-three crania examined. There are no cases of epactal or inter-parietal bones. With regard to metopism, or persistence of the frontal suture, one only out of twenty-nine examined by me presents this condition, it is a young female belonging to Mr. Ball. But it is curious, and nothing could better illustrate the necessity of founding such observations upon considerable series, that among six other examples of Andamanese skulls described, viz., two at Paris, and four in the possession of Dr. Barnard Davis, as many as three are recorded as metopic. This will give a total of four in thirty-five known examples of skulls of the race.

Out of forty-six cases (including both sides) in which the condition of the sutures of the region called by Broca "pterion" could be examined, the squamosal articulated with, or at least reached, the frontal in six, in two of them joining it for a space of fully 12 millimetres, though in both instances (one female in the British Museum, and one male at the Netley Hospital) this occurred on one side of the head only. In eight cases the spheno-

parietal suture was less than 5 millimetres in length; in eight cases there are epipteric bones or accessory ossicles at the upper part of the sphenoid, and the remaining twenty-four are in what may be called the normal condition, though the suture is in every case very short.

Consolidation, complete or partial, of the cranial sutures, has taken place in seven out of twenty-nine crania. In three it is complete, yet in none of them are any of the teeth lost, or even presenting more than a moderate degree of wear. In the four examples of partial consolidation, the coronal has united at an earlier period than the lambdoidal; in fact, the former is completely consolidated in all four, while the latter is either entirely free or only partially consolidated. This corresponds with Gratiolet's view, that in the savage races the anterior, and in the elevated races the posterior cranial sutures are first to consolidate. My impression, judging from the condition of the teeth and general aspect of the skull, is that sutural union takes place in the skull at an earlier period than in ourselves, but at present this can scarcely be considered as demonstrated.

With regard to the projection of the zygomatic arches, of eighteen skulls especially examined with this view by the method adopted by Mr. Busk, all except two are phanozygous; in these two the zygomata are but just covered; in several of the others only the edges appear on each side; in none is there much projection.

The skeleton of the face of the Andamanese is even more characteristic and uniform in appearance than that of the cranium. The profile is remarkable for its straightness, caused by the absence of glabella, or of any sinking in at the root of the nose, and by the small size and flatness of the nasal bones. A straight line drawn from the centre of the forehead to the alveolar point, sloping moderately forward below, corresponds very nearly with the main points of the outline of the face. The malar bones are well-developed and prominent. The outer margin of the orbit stands somewhat more forward than it does in Europeans, though far less than in the Mongolian races, the average nasi-malar angle* being 135° , and when the cranium is horizontal, the lower margin is in advance of the upper. The orbits are always more or less round, with fine, sharply-defined borders. The general average orbital index of the whole series is 910, so that they come into Broca's *meyasene* division. The

* The angle formed between two horizontal lines, meeting at the most depressed point of the nasal bones in the middle line (apex of the angle), and resting on the middle of the outer margin of the orbit. In Europeans, the average angle thus formed is 131° ; in African Negroes, 134° ; in Australians, 135° ; in all the true Mongolian races the average exceeds 140° .

difference between the sexes is not so great as in some races, though, as usual, the females have a somewhat higher index than the males, viz., 915, that of the latter sex being 906. The highest index is 971, the lowest 857. None, therefore, are microseme.

The most characteristic part of the face is probably the inter-orbital region, which is always broad and flat, and with scarcely any definite depression at the root of the nose. In this respect there is a considerable resemblance to the Mongolian races. The ascending or frontal processes of the maxillæ are, as pointed out by Quatrefages, very broad and flat, and with a convex surface in horizontal section. A much larger proportion of these processes is seen in the front face than in most skulls.

The nasal bones have a very characteristic shape, to which there is scarcely an exception in the series. They are small, flat, and very even in width, the sides being more nearly parallel than in most races. As shown by the indices (*see* Table I) the form of the nasal aperture presents some variations ranging from 447 to 578, both, however, very exceptional cases. The average nasal index of the whole series is 512, there being no marked difference between the two sexes. They are thus, as a race, mesorhine, with a tendency towards platyrrhiny. Taken individually, the twenty-four skulls are thus distributed: eighteen are mesorhine, five platyrrhine, and one leptorrhine.

The most characteristic form of the nasal aperture is triangular, the sides nearly straight, diverging moderately as they descend, and with a very straight inferior border, but a more oval form of aperture very frequently occurs. The inferior border itself varies much in construction. In some it is sharply defined and single, the lateral margin of the aperture being continued along the lower border into the spine (Plate III, Fig. 1), as is usually the case in Europeans. In others the lateral margin passes down on to the alveolar surface, separated from the spine and its lateral continuations by a distinct groove, so that the inferior border becomes double (Fig. 2). In some few the border is smoothly rounded, the floor of the nasal chamber passing insensibly on to the alveolar surface of the maxilla.

The nasal spine is always fairly developed, but never large. No. 2 of Broca's scale represents its usual condition, but there are cases in which it approaches No. 3.

The palate is generally flat, and neither broadly parabolic, nor hypsiloid, but rather between the two, and inclined to the V-shape, being usually narrower in front, or hyperbolic (Broca), with the molar series rectilinear and diverging posteriorly.

Among the numerous and sometimes complicated methods proposed for estimating numerically the important differences in the forward projection of the lower part of the face, I

cannot but give the preference, at all events for the present, to the very simple one of comparing the relative length of the basi-nasal and the basi-alveolar lines; the former measured from the basion (middle of anterior margin of foramen magnum) to the nasion (middle of naso-frontal suture), the latter from the basion to the most prominent part of the alveolar border. This is exceedingly easy of application, especially with the sliding calipers, with which all the cranial diameters mentioned in this communication are taken,* and if in some cases not strictly accurate, in the large majority it certainly gives the desired information. Taking the average of skulls of all races, these two lengths are not far from being equal, but in the white races the lower measurement (basi-alveolar) very rarely exceeds the upper (basi-nasal), while in the black races it almost invariably does so; and the numerical ratio between the two dimensions, or the "alveolar index†" as it may be called, accords so truly with what is seen by the eye, and obtained by all other more complex and difficult systems of measurement (as those by which the various facial angles, and angles of prognathism are estimated), that there can be no doubt of its value. The basi-nasal length being taken as 1000, the ratio of the basi-alveolar length to it will give the required index.

When the index is below 1000, as in most Europeans, the skull may be called *orthognathous*; when it is above 1000, as in most negroes, it may be called *prognathous*; but following the usual example of a three-fold division in such cases, it will be most convenient to admit an intermediate category for skulls of an index of 1000, and two figures on each side, say between 980 and 1030, which may be called *mesognathous*.

It certainly happens that in some cases, as those in which the front teeth have been lost and the alveolar walls absorbed, the alveolar index cannot be estimated. In others it fails to give the true position of the face in relation to the cranium, especially where the lower edge of the basi-occipital bone is in an abnormal position, as for instance in skulls having a tendency to platybasic change, when the basion is elevated towards the vertex. In such cases the basi-nasal length is diminished and the basi-alveolar relatively increased, without any real change in the form or position of the upper jaw, and the index would express a greater degree of prognathism than really exists, but

* A figure of this instrument is given in the Introduction to Part I of the Catalogue of the Specimens illustrating the Osteology and Dentition of Vertebrated Animals, in the Museum of the Royal College of Surgeons. 1879.

† A term which may be used to distinguish it from Mr. Busk's "gnathic index," founded on measurements nearly the same (the centre of a line connecting the external auditory meatuses being used instead of the basion), but which is the *difference* and not the *ratio* between the two measurements.

in the case of the Andamanese skulls there appears to be no difficulty on this score, as there is little variation among them in the form of the *basis cranii*.

The average alveolar index of the twelve males is 1014, of the twelve females 1022, or for both sexes 1018, so that they come into the mesognathous group, though just on the verge of the prognathous. The maximum is 1080, the minimum 957. The twenty-four when classified give eight as prognathous, eleven mesognathous, and five orthognathous.

The facial angle which has its apex at the alveolar point, and one limb passing through the centre of the external auditory meatus and the other through the ophryon (the ophryo-alveolo-auricular angle), measured by Broca's median goniometer, gives exactly corresponding results. It averages in the twenty-four skulls 65.5° . In Australian skulls this angle is 64.5° , in Italians 68.0° . Thus the form of the face of the Andamanese, estimated by this angle, holds exactly the same relative position between that of the Australians and the Italians, as it does when estimated by the alveolar index, the latter being, in round numbers, 1040 in the Australians, 1020 in the Andamanese, and 970 in the Italians.

The characters of the mandible present great uniformity throughout the series. As distinguished from the same part in a well-formed European skull, the horizontal ramus is very shallow, and of nearly even height throughout, the mental prominence little developed, the ascending ramus low, and broad from before backwards, the coronoid process ill developed, never or very rarely exceeding the condyle in height, and the sigmoid notch shallow.

The dimensions of the different specimens, taken according to Broca's "Instructions," are given in Table I.

Teeth.

From many of the skulls the teeth have been lost, either wholly or partially; in some few they are all present.

Loss of teeth during life, and caries, are both excessively rare in the series. There is but one case out of all the teeth examined which shows a spot affected with disease.

The malposition of the premolars, noticed in one of the specimens belonging to the Middlesex Hospital, described by Mr. Busk, and stated by Dr. Charles Smith to be common,* does not occur in any other case among the present series, but crowding and consequent overlapping of the incisors, especially in the lower jaw, is very frequent. In two cases the lower canines are both rotated on their axes, so that their lingual

* "Trans. Ethnol. Soc.," vol. iv, p. 210.

surfaces are directed towards the middle line, being in contact with the outer incisors (Plate III, Fig. 2). In one other, a tolerably aged subject, an upper canine is permanently retained in the alveolus, the apex only appearing.

In dimensions the teeth appear equal to the average of those of Europeans, and therefore may be considered large in relation to the general size of the body.

Superior dental prognathism or anterior projection of the upper incisors is marked in many cases, though not universal. The second molar rarely equals and never exceeds the first in size in either jaw. The third is invariably smaller, though it is present on both sides and both jaws in every case examined but one, in which (a cranium only), being rather an old subject, it may possibly have been lost. In the upper jaw its roots are usually connate in those cases in which their condition can be ascertained, though in one instance at least there are three distinct roots. In the lower jaw they are frequently double. The cusps of the molar teeth appear to be normally developed, but their condition is not seen to advantage in many of the specimens, as the surface is more or less worn in nearly all.

Pelvis.

The sexual differences in the lower part of the pelvis, especially in the form of the subpubic arch, are well marked, so that there is no difficulty in recognizing at a glance to which sex each of the seventeen pelves, available for examination, belongs. In general size and development, however, there is very little difference between those of the males and females. Notwithstanding their very small size they are strong and stout, and not one, even among the females, presents any deficiency of ossification in the middle of the iliac fossa, and many of them are not even diaphanous at this part when held to the light.

As a means of characterising different human races, the pelvis will probably be found to be, after the cranium, one of the most important parts of the skeleton. The very marked difference of conformation between the pelvis of man and that of the nearest allied animals would certainly lead to the belief that this might be so.

Unfortunately, owing to the deficiencies of our anthropological collections, the subject has not yet been fully worked out, for the individual differences in pelves are so great, that, as in so many other parts of the skeleton, the examination of one or two specimens is of not the slightest use, and it is only by means of the averages of a large series of each group that information of any

scientific value can be obtained. A system of measurement more uniform and commodious than those hitherto adopted should also be devised. Though not unmindful of the labours of Verneau* and others in this direction, I have endeavoured once more to define and arrange in convenient order the measurements which appear most likely to give useful results in comparing pelves one with another, and have given the results as regards the Andamanese pelves in Table II.

But independently of these detailed measurements, which are set down for the benefit of those who may at a future time be able to derive some value from them by comparisons with similar observations on a sufficiently extended scale from other races, there is much interest in the study of "the pelvic index," or the ratio of the antero-posterior to the transverse diameter of the brim, the latter being taken as 100. This is the key to the general form of the organ, and gives the most concise numerical estimate of the differences between the pelves of different individuals and races. As is well known, the ratio is higher in children than adults, and is higher in all the anthropoid apes than in man. A high index is therefore an indication of an infantile, or of an animal tendency. In this, as in most other pelvic measurements, the two sexes must be taken separately, so that our already too scanty available numbers for averages are still further diminished. The interest of the following facts is however sufficiently significant, and will, I trust, stimulate further observations in the same direction. Verneau gives the average pelvic index of sixty-three male Europeans as 80. In eleven measured by myself it is 81. Seventeen male negroes, according to Verneau, have an average index of 89. Ten male Australians measured by myself give an average of 98. From these figures, and others founded on a more limited number of different groups of the black races, it may be taken as an established fact, that in these races the pelvic index averages considerably higher than in Europeans. The Andamanese follow the same rule, the eight male pelves measured giving an average as high as 101,† the minimum being 92.6, and the maximum 116.2, the longest and narrowest human pelvis I have ever met with. The female pelves give similar results. In Europeans, the average index of thirty-five measured by Verneau is 78, of fourteen measured by myself almost exactly the same. The average of the nine female Andamanese is 95.2, the minimum being 86.4, the maximum 107.8. It will be observed that in both cases the minimum among the Andamanese is very considerably above

* *Le Bas-in*, "dans les Sexes et dans les Races." Paris, 1875.

† Fritch gives the same for the average of six male Kaffir pelves.

the average of the Europeans; and that, perhaps contrary to what might have been expected, there is greater difference between the two sexes in the former than in the latter, but this may be due to insufficiency in the numbers observed. The form of the superior aperture in a very characteristic example of each sex is shown in Pl. V.

Order and Definition of Pelvic Measurements.

1. Inter-acetabular width. Distance between the posterior margins of the two acetabula, at the junction of the ilium and the ischium; the point for convenience called "*cotylon*."

2. Width between iliac crests. The maximum width between the outer edges of the crests, wherever that may be. This is the maximum width of the pelvis.

3. Width between the anterior superior spines of the ilium. The calipers being placed on the centre of the most prominent part of the eminence.

4. Width between ilia posteriorly. The minimum width between the ilia behind the sacrum.

5. Sacral width. The maximum width of the first sacral vertebra.

6. Width of third sacral vertebra. Its maximum width.

7. Width between spines of ischia. Measured between the extremities of the spines. These, unfortunately, are often broken.

8. Width between tuberosities of ischia. The maximum width between their external surfaces.

9. Sacral length. Length of the five united sacral vertebræ in a straight line, measured from the middle of the anterior edge of the body of the first, to the corresponding part of the fifth.

10. Total height. From the highest part (about the middle) of the iliac crest to the lowest part of the tuber ischii.

11. Height of ilium. From the highest part of the crest to the cotylon.

12. Length of crest of ilium. In a straight line between the anterior superior, and the posterior superior spines.

13. Transverse diameter of the brim of the pelvis. The greatest transverse diameter between the ilio-pectineal lines.

14. Antero-posterior diameter of the brim. From the middle of the anterior margin of the upper border of the first sacral vertebra to the nearest point on the inner surface of the symphysis pubis.

15. Height of acetabulum. From middle of the upper border, below and rather behind the anterior inferior spine of the ilium, to the opposite ischial border.

16. Width of acetabulum. From the middle of the pubic border to the cotylon.
17. Height of obturator foramen.
18. Width of obturator foramen.
19. Inter-obturator width. Width between the inner margins of the two obturator foramina.
20. From cotylon to symphysis pubis.
21. Sub-pubic angle.
22. Pelvic index.

$$\frac{\text{antero-posterior diameter of brim} \times 100}{\text{transverse diameter.}}$$

23. Index of height.

$$\frac{\text{greatest height} \times 100}{\text{inter-acetabular width.}}$$

24. Sacral index.

$$\frac{\text{maximum width} \times 100}{\text{maximum length.}}$$

Scapula.

Little attention had been paid to the form of the scapula as a race character, until the publication of a memoir by Broca in the *Bulletin* of the Paris Anthropological Society of last year.* In this communication it was shown that one of the principal modifications of the form of this bone could be expressed by an index constituted by the ratio between the two chief diameters of the bone; *i.e.* the length, measured from the posterior superior angle to the inferior angle, and the breadth, from the middle of the posterior margin of the glenoid cavity to the point on the posterior or vertebral border from which the spine arises. The ratio of the length to the breadth, the latter being 100, is called the *scapular index*. In the anthropoid apes the index varies between 70 and 100. In most of the lower forms of monkeys and other mammals, it is considerably higher. A high index is therefore a sign of inferiority. Broca found that the average scapular index of twenty-three Europeans was 65·91. In order to verify this result, and to obtain a good standard of comparison with other races, my colleague, Dr. Garson, has measured two hundred scapulæ of Europeans, and finds the average index to be 65·2, showing a remarkable agreement with Broca's figures, but as the number of specimens measured was greater, the latter may probably be considered as more

* Tom. I (3me ser.), p. 66, 1878. See also 'On the Scapular Index as a Race Character in Man,' by W. H. Flower and J. G. Garson. "Journal of Anatomy," vol. xiv., p. 13, Oct., 1879.

accurate. The twenty-five skeletons of negroes in the Paris Museum gave an average scapular index in Broca's hands of 68·16. In the collection under my charge, the number of negro skeletons is very small—only three in fact—but from the six scapulae (for it is always desirable to measure both, as variations are frequently met with on the two sides), an average of 71·7 was obtained; and Australians (of which we have twice the number) gave an average of 68·9.

As only such scapulae as have the epiphyses united ought to be measured, otherwise the relative dimensions will be considerably altered, several of the Andamanese skeletons could not be included in the available series. This precaution reduced the total number of scapulae available to twenty-one. These gave an average index of 69·8, showing quite satisfactorily that in this character, as in the pelvic index, and, as will be shown, in the proportions of the long bones of the limbs, the Andamanese stand in close relationship to the negro, and also to the Australian, and differ widely from the European.

A distinct suprascapula notch is very rare; it occurs in fact in only three out of the whole number of bones examined. Generally there is a gradual and shallow excavation of the whole upper border, as in the anthropoids. In some cases, especially among the females, whose scapulae are of remarkably diminutive size, the whole border is deeply excavated. In two cases the notch is bridged over and converted into a foramen. The surface for the attachment of the *teres major* is often well developed, forming a strong triangular projection on the anterior border.

Limb Bones.

The clavicles appear to be very small in proportion to the length of the other bones. The average length in the males is 116·0 millimetres, in the females 107·0, which is, as compared with the femur, as 29·1 to 100 for the males, and 28·3 to 100 for the females. In the average European male skeleton the clavicle is to the femur as 32·7 to 100.

Perforation of the supracondylar fossa of the humerus is very common, especially among the females, in which sex it occurs in eleven out of seventeen cases examined, while among sixteen humeri of males, there are only five instances of this condition. This is evidently in relation to the more powerful development of the bone in the male sex. In some of these the deltoid and other ridges for muscular attachment are very strongly expressed.

The form of the tibia varies also with muscular development, but on the whole it is usually more compressed than in Euro-

peans, though not perhaps to the extent of true platycnemy. The average latitudinal index of the tibia, or ratio between transverse and antero-posterior diameters at the middle of the bone, is, in sixteen male tibiæ 647, and in seventeen females 675 : while, according to Busk, the mean of the same index, in thirteen European tibiæ, is 730.

Attention was first drawn to the fact that the proportions of the different segments of the limbs might differ in various races by the announcement in 1799, by White, of Manchester, since amply confirmed, that the forearm of the negro is proportionally longer than that of the European. Relative lengths of bones are far more difficult to estimate on the living than on the skeleton ; but, unfortunately, skeletons of most races are so rare in collections, that we have at present but few reliable data on the subject. As in other parts of the structure, one or two examples are of little or no use, as in all races there are great individual modifications. It is only when a sufficient number can be obtained on which to base a fair average, that any satisfactory law can be established. The numbers in the case of the Andamanese are sufficient, at all events, for a very good approximation, although slight modifications in the averages will perhaps have to be made with further augmentation of materials.

The measurements of the individual bones are given in the appended tables, but I will here point out the principal results, both sexes being taken together, as there is but slight variation between them in this respect.

The first ratio or index is that obtained by the comparison of the upper and lower limbs compared with each other; the *inter-membral* index, or the length of the humerus and radius added together, compared with that of the femur and tibia, the latter being taken as 100. This ratio in the nineteen Andamanese skeletons is 68·3 ; in fourteen Europeans, measured in the same manner, it is 69·2 ; showing a slight diminution in the length of the arm of the former as compared with the latter. This has also been found by Broca to be the case with African negroes ; the index given for them being 68·27, that of Europeans 69·73. This is caused entirely by the relative shortness of the humerus in the black races, which is the more singular, as it is a character which rather separates than approximates them to the anthropoid apes.

The *femoro-humeral* index (or ratio of the humerus to the femur, the latter being taken as 100), is about 100 in the chimpanzee, 120 in the gorilla, and 130 in the orang ; in nine Europeans, according to Broca, 72·20, in eleven normal adult Europeans, from my own measurements 72·9, in sixteen negroes (Broca) 68·97, and in the nineteen Andamanese 69·8.

The *femoro-tibial* index is the ratio of the length of the tibia to the femur, the latter being 100. The average index of fourteen Europeans, measured by myself, is 82·1, the average of eleven Australians, also measured by myself, 84·9; of twenty-five negroes, according to Humphry, 84·7; of the nineteen Andamanese, almost exactly the same, viz., 84·5.

The *humero-radial* index or the length of the radius compared to the humerus, is perhaps the most important of these indices as presenting greater and more constant differences in different races. In all the anthropoids it is higher than in man, varying from 80 in the gorilla to 100 in the orang. Broca gives 73·9 as the average of nine European skeletons at Paris, and by a singular coincidence I have obtained exactly the same figures from quite independent measurements of fourteen skeletons in London. Eleven Australians in London give 76·5. Fifteen negroes in Paris give, according to Broca, 79·4; the nineteen Andamanese as high a figure as 81·0: higher than in any other known race.

It should be mentioned that the measurements given of all bones are the maximum lengths in a direction parallel to the long axis of the bone, and in the case of the tibia include both the spine and the malleolus.

Unfortunately the bones of the hands and feet are extremely defective in nearly all the skeletons at my disposal, so I must defer any observations of their peculiarities until better opportunities of examining them should occur.

Conclusions.

The chief outlines of the physical characters of the Andamanese, or at all events of that portion of the race dwelling in the neighbourhood of Port Blair, may now be considered as fairly well known.

The hair is fine and curly and crisp, what is commonly called "woolly" or more properly "frizzly." A specimen sent home by Mr. Man, and for some of which I am indebted to General Lane-Fox, very much resembles that of the Bushman, though not quite so small or so much flattened when seen in section. As usual, the individual hairs differ somewhat in proportion, but there are many examples in which the short diameter is not more than half the length of the long diameter, so that it must certainly be placed among the most elliptical or flattened of any human hair known.

The general colour of the skin is described by all observers as quite as black as that of the majority of Negroes, whether African or Oceanic. The features, however, judging from photographs, possess little of the Negro type; at all events, little

of the most marked and coarser peculiarities of that type. The projecting jaws, the prominent thick lips, the broad and flattened nose of the genuine Negro are scarcely to be recognised in the Andamanese. All these characteristics of most of the black races are softened and refined away in the living face, as we have seen them to be in its osseous framework. In consequence of this, it has seemed doubtful whether, in a classification founded on physical characters, they ought to be placed in the same group with the other black and frizzly-haired races.

It is the opinion of many anthropologists that the character of the hair is one of primary importance in the classification of man. It would seem *à priori* very unlikely that, whatever the primitive ancestors might have been, hair so peculiar as that of the Negro and the Andamanese should have been developed independently in two distinct stocks. But still if it had been shown that the other essential physical characters of the Andamanese departed from those of the Negro and more closely resembled those of some other, as, for instance, one of the straight-haired races, the value of this character as indicating true affinity would be greatly shaken. To follow out such an argument, it is necessary to separate what is essential from what is incidental or merely superficial in the characters on which the comparison is based. Such a separation lies at the root of all problems of this nature that zoologists are called upon to solve, and in proportion as the difficulties involved in this delicate and often perplexing discrimination are successfully met and overcome, will the value of the conclusions be increased. These difficulties, so familiar in zoology, are still greater in the case of anthropology. The differences we have to deal with are often very slight; their significance is at present very little understood; our information is often extremely scanty, and when otherwise, is usually overladen with irrelevant and useless details; for in the present state of the science, not knowing what may be of importance and what not, those who collect facts have been obliged to heap together everything that appears capable of being recorded, believing that possibly at some future time it may prove of value—as witness the elaborate tables of cranial measurements, from which hitherto no useful results have been derived. It is certainly time now to endeavour, if possible, to discriminate characters which indicate deep-lying affinity from those that are more transient, variable or adaptive, and to adjust, as far as may be, the proper importance to be attached to each.

The study of such a race as the Andamanese would throw much light not only on their own affinities, but also upon the general value of anatomical characters in the classification of

man, if it could be thoroughly carried out by comparison with an equal number of individuals of other more or less related races, treated in the same manner. But, unfortunately, at present this cannot be. Of how few groups of the human species do we possess even a fair approximation to the average proportions of the limb bones, of the pelvis, even of the better-studied bones of the face and cranium?

Of the people most nearly allied to the Andamanese, the other Negritos, scattered here and there in the interior of various islands of the Malay Archipelago, but rarely, if ever, now found in a state of purity, we know really next to nothing. In the great work, "*Crania Ethnica*," now being published by Quatrefages and Hamy, all available sources of information regarding them have been laid under contribution, and their osteological characters, as deduced from the few specimens of crania in European museums, and their geographical distribution, have been described as fully as the scanty materials will permit. Their common characters are diminutive stature, dark complexion, frizzly hair, and short round heads. In details of cranial and facial conformation, the skulls that have been described and figured as belonging to this race, differ much among themselves, and certainly differ from the Andamanese; but then, as before said, the circumstances under which they live and have lived for centuries, with no impassable barriers separating them from Malays and other different races, have interfered with their purity. In the case of two skulls in the Museum of the College of Surgeons from the Philippines, which Quatrefages has attributed to Negritos, there is very little evidence, either external or internal, as to their origin, and one of them decidedly appears to me to be Malay. The Aeta or Ate' figured by Dr. Barnard Davis, however, does appear (as before mentioned) to resemble more closely the Andaman natives, and it is highly probable, although some of the evidence hitherto brought forward is not conclusive, that a race of which the Andamanese are members, was once distributed over the greater part of the Malay Archipelago as far as New Guinea, and perhaps (although here proof is scarcely forthcoming at present) over the south-eastern portion of the mainland of Asia. One difficulty in investigating the evidence of this question, is the resemblance which the skulls of another race inhabiting nearly the same area, the Malays, bear in many points to those of the Negritos, so that a combination of the frizzly hair of the Papuan with the round skull of the Malay, in a mixed race, might easily, though perhaps erroneously, be attributed to Negrito influence.

Granting that there is a distinct group of men, specially exemplified by the Andamanese, for which the term Negrito, first

applied by the Spaniards to those who inhabited the mountainous districts in the interior of Luzon, may be retained, what relation do they bear to the other frizzly or so-called woolly-haired races? These races at the present time occupy the whole of the continent of Africa south of the Sahara Desert, excepting such parts from which they have been displaced by European or Asiatic invaders, and also the greater number of the islands of the Western Pacific Ocean. This geographical distribution leads to a convenient division into African and Oceanic Negroes. The Negritos, it will be observed, are exactly interposed between the two, touching the area of, and intermingling with, the Oceanic Negroes in the East, but separated on the West from the African Negroes by the wide space of the Indian Ocean.

With the Oceanic Negroes, or Melanesians, as they are now commonly called, we might naturally suppose they had most in common. But this is not the case. Although the Melanesians vary much in stature, none are so small as the Andamanese, and some are fully equal to the average of the species. Their crania, whenever they are met with in a pure state, are remarkably long, narrow, and high; a peculiarity which has given rise to the word *hypsistenocephalic*, applied specially to them. The pure Fijians are perhaps the most dolichocephalic race in the world, and the New Caledonians and the New Hebrideans come near them. In this respect they are, therefore, as distinct as possible from the Andamanese. It is true that at the southern and northern extremities of their area of distribution, the head form varies from the ordinary type, becoming less compressed. The Tasmanians present an approach to brachycephaly* and so do some of the Papuans. In the latter case intermixture with Negritos or Malays may be suspected, but this cannot be the case with the former. In no other respect, however, do they resemble the Andamanese. The projecting supraciliary ridges, the low orbits, the wide nasal aperture and the prognathism common to all Melanesians, and distinguishing them from Negritos, are all exaggerated in the Tasmanians.

As is well known, the African frizzly-haired races are mostly of moderate or tall stature, but there are among them some, as the Bushmen of the South, and others less known from the Central regions, as diminutive as the Andamanese. Dolichocephaly prevails among them, as among their Oceanic allies,

* The average latitudinal index (76.3) of the Tasmanians given in the Catalogue of the Museum of the Royal College of Surgeons (1879), founded on the measurement of fourteen individuals is probably higher than would be given by a larger or more fairly representative series. Five crania in the Museum of the University of Oxford have an average index of only 74.1.

though not quite to the same extent, and a small race of round-headed Negroes from West Africa are mentioned by Hamy under the name of Negrillos, but as yet without details. Although as prognathous as the Oceanic Negroes, and more platyrrhine, as a general rule the orbit of the Africans is higher and rounder, and the forehead smoother, not unfrequently presenting the same absence of glabella and brow ridges seen in the Negritos of the Andamans. But from the majority of African Negroes, as from the Melanesians, the Negritos differ in the rounder brain-case, as shown by a cephalic index of 80 or upwards; smooth, flat brow; absence of glabella and of ridges generally for muscular attachments; rounder and thinner-edged orbits; narrower noses and less projecting jaw bones. The question to be considered is whether these differential characters outweigh those of agreement, as the nature of the hair, the colour, the form of pelvis, and the general proportions of the limbs.

If the general form of the cranium as regards breadth compared to length is to be considered of primary importance in classifying races, as Retzius and his followers thought, the Andamanese must be placed in a totally distinct division from the greater number both of Oceanic and African Negroes; but the variations seen in certain groups of both of these divisions, and the well-known cases in other races, as the Eskimo and the Asiatic Mongols, clearly allied in other respects, yet differing most widely in cranial form, show that this character can only be placed in the second rank of importance.

In estimating the value of many of the differences, we can scarcely fail to observe that they are of very much the same kind as those seen between the smaller and larger species or varieties of various groups of animals, and also between the young and the old of the same species. If the cranium of a small *Cercopithecus* or Macaque be compared with that of a Baboon; a Chimpanzee with a Gorilla; or a young Gorilla or Orang be compared with an adult of the same species, the relation will be seen to be very much the same as that between a Negrito and a large powerful Negro or a New Hebridean. There is certainly much that is child-like in the physical characters of the Andamanese, especially in those of the cranium. The smoothness of the brow, the high orbital index, the low alveolar index, are infantile characters. They are all found in the children of the Negro and Melanesian races.

Some characters, as the brachycephaly, seem special to the race; but in many of the others, when viewed in the light just indicated, there seems to be nothing which should so far contradict the indications derived from other sources, as to cause

the Negritos to be removed into a distinct primary group of Man. I would rather look upon them as representing an infantile, undeveloped, or primitive form of the type from which the African Negroes on the one hand, and the Melanesians on the other, with all their various modifications, may have sprung. Even their very geographical position in the centre of the great area of distribution of the frizzly-haired races seems to favour this view. We may, therefore, regard them as little-modified descendants of an extremely ancient race, the ancestors of all the Negro tribes. It is, however, equally open to anyone to entertain the supposition that many centuries of isolation and confinement to a limited space has caused them to retrograde to their present condition from one more fully developed, and that instead of representing an ancient form preserved in its purity, they may be a type of comparatively recent growth. Whichever hypothesis be ultimately adopted, their relationship, as shown by physical characters, to the other black races, is, I think, demonstrated, and a step thus gained in solving the complicated problem of the classification of the divisions and sub-divisions of the human species.

NOTE TO TABLE I.

For convenience of comparison, the greater number of the cranial measurements given are taken on the plan recommended in the "Instructions Craniologiques et Craniometriques," drawn up by Broca, and published by the Anthropological Society of Paris in 1875. Certain cases of deviation from these instructions will, however, require explanation.

1. *Capacity*.—The cranial cavity is filled to the utmost with mustard seed, poured in through a funnel of narrow aperture and well shaken. The seed is then measured in Busk's choremmeter, being poured in through the same funnel and frequently shaken.

2. The length is measured in front from the ophryon instead of the glabella, which is properly a part of the face and not of the cranium.

14 to 17. The transverse arcs are measured from the spot on the ridge immediately above the middle of the external auditory meatus (posterior root of the zygoma), where it is crossed by the auriculo-bregmatic line (line from the centre of the auditory meatus to the bregma). They pass to the corresponding spot of the opposite side over the most prominent part of the frontal, parietal, or occipital bones, as the case may be, or the bregma (No. 15). The last corresponds with the *corbe sus-auriculaire* of Broca.

23 to 26. The projections are taken when the cranium is

TABLE I.—CRANIAL MEASUREMENTS.

	Sex.	1 Capacity.	2 Length (ophryo-occipital).	3 Height (basi-bregmatic).	Transverse diameters of cranium.					9 Index of breadth.	10 Index of height.	Horizontal circumference.		13 Vertical transverse circumference.	Transverse arcs.				Longitudinal arcs.			Of foramen magnum.		Projections (visual axis being horizontal).					27 Basi-nasal length.	28 Basi-alveolar length.	29 Alveolar index.	Diameters of face.					35 Height of Alveolus.	36 Auriculo-orbital length.	Of Orbit.			Of Nasal Aperture.				Of Palate.		Angles.			MANDIBLE.										
					4 Minimum frontal.	5 Maximum frontal.	6 Occipital (asterne).	7 Bi-auricular.	8 Maximum parietal.			11 Pre-auricular.	12 Total.		14 Frontal.	15 Bregmatic.	16 Parietal.	17 Occipital.	18 Frontal.	19 Parietal.	20 Occipital.	21 Length.	22 Width.	23 Facial.	24 Anterior cranial.	25 Posterior.	26 Total.	30 Bizygomatic.				31 Bijugal.	32 Inter-orbital.	33 Height of Face.	34 Height of Malar.	37 Width.			38 Height.	39 Index.	40 Height.	41 Width.	42 Index.	43 Length.	44 Width.	45 Index.	46 Local ophry. alv angle.	47 Nasal Malar.	48 Basilar.	Width.		Height.			51 Gonio-symphysal length.	Of Ramus.		57 Mandibular angle.			
																																																		19 Biondylar	20 Biondylar	51 Symphysal	52 Malar	53 Coronoid		55 Height	56 Ant. post. breadth.				
R.C.S. 1202	♂	1260	165	134	90	103	102	113	137	83.0	81.2	206	475	412	263	293	315	247	125	120	106	32	27	—	—	—	—	92	89	967	119	111	24	76	24	13	63	36	33	91.7	46	24	52.2	45	35	72.9	70.°	137.°	—	—	—	—	—	—	—	—	—				
R.C.S. 1205	♂	1250	166	124	92	116	107	119	139	83.7	74.7	215	483	415	263	285	303	245	120	120	103	33	27	10	80	83	173	93	93	1000	128	114	26	82	21	17	61	36	34	94.4	47	24	51.1	50	37	74.0	66.°	133.°	23.°	112	103	22	21	45	81	46	32	117.°			
R.C.S. 1206	♂	1195	171	133	90	109	103	106	133	77.8	77.8	205	482	400	253	285	308	264	126	125	107	33	25	14	78	88	180	92	92	1000	120	106	21	80	21	15	60	36	31	86.1	40	21	52.5	49	34	69.4	68.°	131.°	37.°	99	85	29	22	57	81	55	31	115.°			
R.C.S. 1207	♂	1330	163	132	92	116	96	112	138	82.1	78.6	220	490	414	275	290	325	245	125	123	108	32	27	20	78	88	186	96	98	1021	120	107	25	81	18	17	60	35	32	91.4	46	24	52.2	56	34	60.7	64.°	125.°	30.°	112	90	24	22	57	75	33	22	114.°			
R.C.S. 1211	♂	1360	171	130	95	115	107	115	135	78.9	76.0	215	492	420	273	290	325	263	120	135	105	34	30	20	80	88	183	95	102	1074	125	111	23	90	25	18	66	36	34	94.4	49	25	51.0	58	39	67.2	65.°	135.°	22.°	—	—	—	—	—	—	—	—				
R.C.S. 1217	♂	1170	166	123	92	107	101	108	130	78.3	77.1	210	470	402	260	285	305	245	—	—	100	34	27	23	74	86	183	97	97	1000	127	113	24	83	23	19	65	36	33	91.7	47	21	44.7	53	37	69.8	65.°	136.°	25.°	111	96	28	22	57	81	55	31	126.°			
Middlesex Hospital	♂	1150	172	125	93	109	104	119	132	76.7	72.7	224	481	405	265	273	300	245	117	119	106	35	31	15	86	79	180	101	102	1010	131	117	26	89	25	22	63	33	33	86.8	50	25	50.0	56	36	64.3	66.°	—	24.°	—	—	—	—	—	—	—	—				
Oxford	♂	1300	167	133	101	112	103	113	135	80.3	79.6	218	478	413	263	292	318	250	120	123	100	34	27	21	81	84	186	93	102	1041	127	115	26	85	24	19	61	33	35	92.1	45	26	57.3	55	35	63.6	65.°	132.°	35.°	107	94	26	23	58	80	52	33	122.°			
British Museum (Ingle...	♂	1150	169	126	90	103	99	114	135	79.9	74.6	222	479	402	260	275	300	245	117	115	106	32	26	—	—	—	—	96	97	1010	126	114	25	82	18	19	62	36	32	88.9	45	22	48.9	53	35	66.0	—	143.°	—	—	—	—	—	—	—	—					
British Museum (Mouatt)	♂	—	160	128	85	110	100	111	135	84.4	80.0	206	467	403	243	282	305	245	115	116	94	37	23	—	—	—	—	92	94	1022	124	112	21	82	25	16	62	35	33	94.3	46	22	47.8	—	—	—	—	136.°	—	—	—	—	—	—	—	—	—				
Mr. Ball...	♂	1215	169	133	93	107	101	116	131	77.5	73.7	210	480	412	—	285	—	—	—	—	—	35	32	6	88	78	172	99	96	970	135	116	25	82	22	17	62	39	34	87.2	45	24	53.3	51	36	70.6	66.°	—	29.°	—	—	—	—	—	—	—	—				
Dr. A. Thomson	♂	1250	166	140	91	114	103	118	139	83.7	73.3	208	483	426	260	255	325	255	122	130	103	32	27	13	80	85	178	89	94	1056	126	113	21	81	23	18	60	37	33	89.2	43	23	53.5	54	39	72.2	62.°	140.°	25.°	—	—	—	—	—	—	—	—	—			
Average of males		1244	167.5	129.6	92.0	110.0	102.6	113.7	134.9	80.5	77.0	213.2	480.0	410.3	263.0	255.0	312.6	249.9	120.7	122.6	103.9	33.6	27.8	15.7	80.5	84.3	180.6	95.0	96.3	1014	1,257	112.6	23.9	82.7	22.4	17.7	62.5	36.3	33.0	90.6	45.8	23.4	51.1	53.0	36.0	68.1	65.7	135.4	28.1	105.2	93.6	25.8	22.0	54.5	80.2	52.2	31.8	118.5			

R.C.S. 1204	♀	1125	165	126	86	107	94	102	131	79.4	76.4	192	465	390	257	275	307	255	114	107	112	35	25	16	77	82	175	90	93	1033	114	105	23	79	18	16	61	35	33	94.3	43	21	48.8	52	34	65.4	63.°	133.°	34.°	96	75	27	24	53	72	50	33	115.°		
R.C.S. 1212	♀	1180	161	122	87	110	97	113	136	84.5	75.8	203	468	395	260	275	307	250	113	127	98	33	28	6	79	80	165	88	86	977	118	102	22	71	16	11	59	36	32	88.9	42	22	52.4	48	33	63.8	70.°	145.°	22.°	105	89	22	20	47	72	50	31	111.°		
R.C.S. 1213	♀	1110	159	126	90	110	89	101	131	82.4	79.2	203	455	390	255	290	305	233	116	123	95	29	25	14	77	80	171	91	92	1011	115	104	22	75	19	15	59	34	32	94.1	43	21	48.8	51	32	62.7	69.°	132	26.°	95	80	24	23	45	76	50	33	113.°		
R.C.S. 1203	♀	1080	152	125	92	110	96	113	132	86.5	82.2	202	455	405	256	279	300	220	115	118	95	28	25	8	77	73	158	87	88	1011	115	105	23	75	22	15	59	35	32	91.4	43	22	51.2	51	36	70.6	67.°	134.°	24.°	103	88	25	22	51	88	47	33	113.°		
R.C.S. 1214	♀	1025	156	125	91	106	89	103	132	84.6	80.1	199	456	394	247	276	306	226	109	117	107	29	27	18	74	77	169	88	95	1050	117	106	26	75	21	15	57	35	30	85.7	43	23	53.5	49	34	69.4	60.°	124.°	23.°	102	86	24	19	59	75	48	32	125.°		
R.C.S. 1215	♀	1100	157	120	94	103	99	112	131	83.4	76.4	195	454	387	245	265	295	232	108	116	100	32	28	14	76	77	167	86	92	1070	119	109	22	74	20	19	57	34	32	94.1	42	21	50.0	50	35	70.0	62	139.°	25.°	106	91	27	23	50	75	55	32	120.°		
R.C.S. 1216	♀	1100	160	126	89	107	97	111	135	84.4	78.8	205	462	402	238	280	302	240	122	113	99	32	29	10	73	79	167	90	88	978	117	104	22	75	20	19	61	35	32	91.4	42	22	52.4	45	34	75.6	70.°	134.°	24.°	107	90	21	20	45	79	45	30	115.°		
R.C.S. 1218	♀	1210	165	124	87	109	99	111	134	81.5	75.6	210	474	400	260	282	310	245	117	125	100	33	28	18	77	84	179	92	97	1054	119	106	22	80	22	20	63	35	33	94.3	45	23	51.1	57	36	63.2	65.°	134.°	25.°	104	80	31	24	54	77	56	33	120.°		
Middlesex Hospital	♀	1190	163	131	89	110	100	114	137	84.6	80.4	197	463	400	250	277	310	240	116	115	102	35	30	18	73	83	179	94	96	1021	121	104	21	81	20	17	61	34	31	91.2	43	22	51.2	56	35	62.5	63.°	—	36.°	—	—	—	—	—	—	—	—			
Oxford	♀	1050	162	124	87	107	90	103	130	80.2	76.6	197	453	385	255	273	295	237	112	110	106	31	22	11	79	80	170	94	90	957	115	103	22	75	19	14	61	34	33	97.1	45	23	51.1	47	37	78.5	69.°	131.°	35.°	105	86	23	21	49	71	49	29	119.°		
British Museum (Ingle...	♀	1250	167	127	93	111	105	112	136	81.4	76.0	212	475	403	255	282	313	243	122	117	108	31	27	—	—	—	—	93	93	1000	120	111	25	77	20	15	58	36	32	89.9	43	23	53.4	50	33	66.0	—	135.°	—	—	—	—	—	—	—	—				
Univ. Coll.	♀	1050	161	127	89	102	97	112	129	80.1	78.9	200	462	394	255	277	296	235	114	110	103	33	27	20	80	77	177	95	102	1074	122	116	26	79	19	22	64	39	34	87.2	45	23	51.1	57	38	66.6	60.°	134.°	30.°	—	—	—	—	—	—	—	—	—	—	—

placed on a board with the visual axis (or at least a line which probably represents this axis, passing through the optic foramen and the centre of the anterior aperture of the orbit) horizontal. The facial projection is that part in front of a vertical line passing through the ophryon; the anterior cerebral, the portion between this and a vertical through the basion; the posterior cerebral, that part situated behind the basion.

29. The alveolar index is fully explained in the text at p. 119.

46. The facial angle is that of which the alveolar point is the apex, the limbs passing through the ophryon and the auricular point respectively, taken by means of Broca's median goniometer.

47. The nasi-malar angle is explained at p. 117.

48. The basilar angle is formed between a prolongation of the basi-nasal line and the plane of the foramen magnum, the apex being at the basion. N.B. of the "Instructions" p. 92.

The measurements of the mandible correspond with those of the "Instructions," except that Nos. 3, 9, 10, and 12 are omitted and one is added, the coronoid height (No. 53; being the vertical distance between the summit of the coronoid process and the lower border of the mandible.

DESCRIPTION OF THE PLATES.

All the figures are from specimens in the Museum of the Royal College of Surgeons of England. The numbers refer to the Catalogue of the Osteological Specimens (1879). They are drawn half the size of nature, on a geometrical projection, the outlines being traced by means of Broca's stereograph, and then reduced. The plane of the visual axis is horizontal in the figures in Plates I and III, and vertical in those of Plate IV.

Plate II.—Side view of skull.

Fig. 1.—Male, No. 1205.

Fig. 2.—Female, No. 1214.

Plate III.—Facial view of skull.

Fig. 1.—Male, No. 1205.

Fig. 2.—Female, No. 1214.

Plate IV.—Upper surface of cranium.

Fig. 1.—Male, No. 1211. Narrow form. Latitudinal index, 78.9.

Fig. 2.—Female, No. 1214. Broad form. Latitudinal index, 84.6.

Plate V.—Pelvis. Looking directly upon the plane of the upper aperture.

Fig. 1.—Male, No. 1206. Index, 1102.

Fig. 2.—Female, No. 1214. Index, 990.

TABLE II.—PELVIC MEASUREMENTS.

	1 Inter-acetabular width.	2 Width between iliac crests.	3 Width between ant. sup. spines.	4 Width between ilia posteriorly.	5 Sacral width.	6 Width of 3rd Sacral.	7 Width between spines of ischia.	8 Width between tuberosities of ischia.	9 Sacral length.	10 Total height.	11 Height of ilium.	12 Length of crest of ilium.	13 Trans. diam. of brim.	14 Ant. post. diam. of brim.	15 Height of acetabulum.	16 Width of acetabulum.	17 Height of obturator foramen.	18 Width of obturator foramen.	19 Inter-obturator width.	20 From Cotyion to symphysis pubis.	21 Subpubic angle.	22 Pelvic index.
MALES.	1206.	205	175	55	88	65	61	105	100	169	101	124	88	97	44	42	38	21	39	87	63°	1162
	1207	213	188	50	93	69	115	92	92	179	106	134	95	95	44	44	41	25	36	95	72°	1090
	1210	189	221	54	88	70	120	98	98	183	108	127	95	98	50	47	46	23	37	101	73°	926
	1209	149	183	51	95	73	65	118	100	173	104	127	95	98	46	44	42	29	35	95	73°	1032
	1217	156	217	66	99	73	74	125	108	187	116	132	101	95	47	47	48	34	33	102	65°	941
	1208	130	208	62	87	68	63	97	86	164	99	115	91	85	45	43	43	29	26	88	55°	934
	Oxford.	144	225	198	60	96	64	111	98	179	107	134	94	92	48	46	45	24	33	95	55°	979
B. M. Dr. Jangle	126	196	177	55	84	70	55	103	93	170	100	117	92	93	47	45	44	25	33	88	60°	1162
Averages ...	141.9	212.1	183.9	56.8	91.3	69.0	63.6	111.8	97.1	175.5	105.1	126.3	92.4	92.9	46.4	44.8	43.4	27.0	34.0	93.9	61.6	1009.5
FEMALES.	1212	207	175	71	69	73	93	142	96	170	100	121	110	109	44	41	41	32	41	97	100°	991
	1213	204	178	62	94	75	82	130	97	164	99	117	102	100	45	41	42	28	45	97	88°	980
	1203	153	202	70	91	72	93	135	77	160	92	122	91	96	42	40	37	26	36	94	80°	892
	1214	146	185	65	93	71	81	127	88	165	111	119	97	96	42	39	38	26	42	91	86°	980
	1216	147	202	63	98	76	88	127	90	160	96	119	100	92	42	42	46	32	40	96	95°	920
	1218	154	226	69	93	77	85	132	100	170	101	135	106	97	45	42	46	32	42	96	80°	915
	Oxford.	149	197	64	98	76	96	128	99	172	105	126	102	110	47	44	43	27	44	96	80°	1078
Thomson (A).	152	208	171	63	100	76	96	139	82	172	105	126	104	98	42	40	38	28	43	97	90°	912
Thomson (B).	144	203	183	68	91	71	73	118	78	155	100	118	103	89	39	38	43	31	32	88	73°	861
Averages ...	150.2	203.8	175.4	64.6	95.2	74.1	87.1	130.9	89.7	165.4	100.9	122.6	102.9	98.0	43.2	40.8	41.3	28.8	40.8	91.7	85.3	952.4

TABLE III.—MEASUREMENTS OF LIMB BONES.

		Clavicle		Humerus		Radius		Femur		Tibia	
		r.	l.	r.	l.	r.	l.	r.	l.	r.	l.
R.C.S.	...	109	109	281	278	202	206	382	382	321	319
—	...	123	121	—	266	232	232	393	394	345	342
—	...	121	116	254	233	243	238	387	400	345	244
—	...	114	112	267	264	—	213	378	384	312	314
—	...	—	107	276	—	226	—	410	—	343	348
—	...	—	—	281	—	234	—	—	410	—	331
—	...	121	121	277	—	228	228	—	403	—	340
Oxford ...	...	130	130	310	308	255	253	442	439	366	364
British Museum (Mount)	...	109	108	275	277	222	221	385	389	324	324
British Museum (Ingto)	...	—	—	—	—	—	—	—	—	—	—
Average of	...	110.9	110.9	281.3	281.3	228.9	228.9	398.7	398.7	330.2	330.2
R.C.S.	...	110	107	279	275	217	211	390	393	328	328
—	...	97	—	218	245	—	200	359	360	304	306
—	...	107	107	249	247	201	200	367	370	300	299
—	...	102	103	262	255	211	208	384	380	323	323
—	...	114	114	256	—	214	210	380	381	317	316
—	...	—	97	244	242	198	197	358	358	303	305
—	...	112	116	279	274	217	213	393	391	336	331
Oxford ...	...	98	95	277	280	223	224	410	407	346	346
Dr. A. Thomson	...	113	112	253	249	214	209	364	361	316	314
Dr. A. Thomson	...	111	111	270	270	211	210	377	379	335	333
Averages	...	107.1	107.1	250.7	250.7	210.0	210.0	378.2	378.2	320.5	320.5

MAY 13TH, 1879.

Prof. W. H. FLOWER, F.R.S., *Vice-President, in the Chair.*

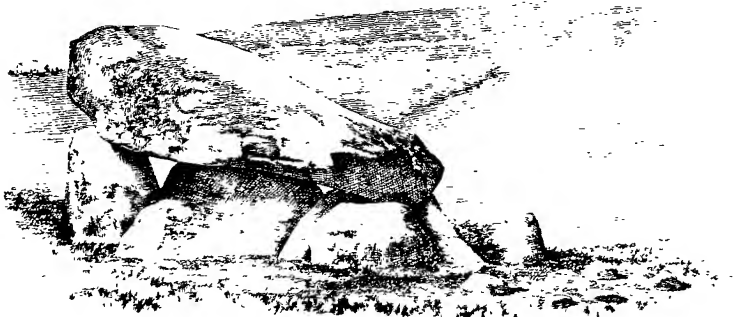
The minutes of the previous meeting were read and confirmed.

The following presents were announced, and thanks were ordered to be returned to the respective donors:—

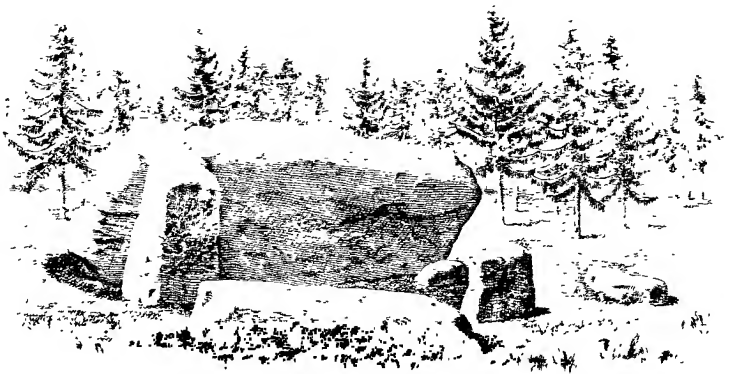
FOR THE LIBRARY.

- From the SOCIETY.—Journal of the Royal Asiatic Society. Vol. XI, Part 2.
- From the SOCIETY.—Proceedings of the Royal Society. Vol. XXVIII, No. 194.
- From the SOCIETY.—Proceedings of the Royal Geographical Society, Vol. I, No. 5.
- From the SOCIETY.—Transactions of the Asiatic Society of Japan. Vol. VII, Part 2.
- From the BERLIN ANTHROPOLOGICAL SOCIETY.—Zeitschrift für Ethnologie, No. 6, 1878; No. 1, 1879.
- From the INSTITUTION.—Journal of the Royal United Service Institution. Vol. XXIII, No. 99.
- From the ACADEMY.—Bulletin de l'Académie Royal de Copenhagen, Nos. 1 and 2, 1879.
- From the AUTHOR.—“Ancient Stone Implements in India.” By V. Ball, M.A., F.G.S.
- From the AUTHOR.—“Traces of an Early Race in Japan.” By Edward T. Morse.
- From the SOCIETY.—Bulletin de la Société de Borda a Dax, No. 1, 1879.
- From the SOCIETY.—Giornale della Società di Scienze Naturali di Palermo. Vol. XIII, 1878.
- From the GOVERNMENT.—Statistics of the Colony of New Zealand for 1877.
- From the SOCIETY.—Journal of the Royal Geological Society of Ireland. Vol. V, Part 1.
- From the AUTHOR.—Bara or Barata Fossil Words. By J. T. Thomson.
 Anthropologia. By D. Paolo Ricardi.
 Saggio di Studii intorno alla professione della Pesca in Alcune Razzeumane. By D. P. Ricardi.
- From the EDITOR.—Revue Scientifique, Nos. 44 and 45, 1879.

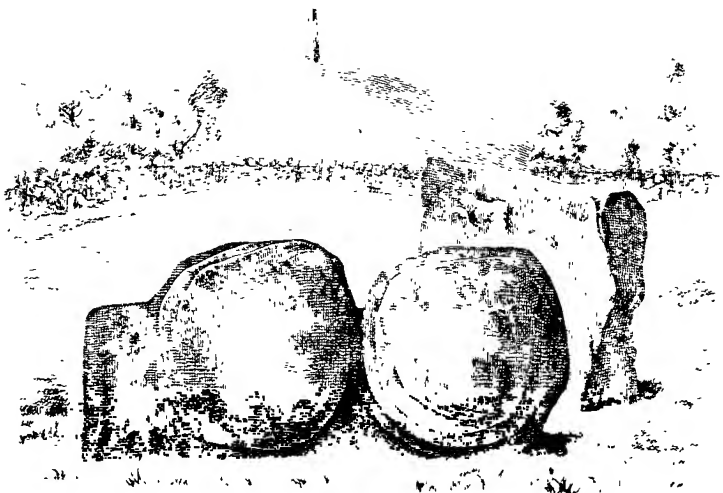
A paper was read by HYDE CLARKE, Esq., V.P., entitled “The Ethnology, Mythology, and Philology of Races of Early Culture, Babylonians, Etruscans, Egyptians, Japanese, &c.”



DRUIDS' ALTAR, CARRICKMINES, NEAR DUBLIN
from the South



DRUIDS' ALTAR, MOUNT VENUS, NEAR DUBLIN
from the West



STONES AT KILLINEY, NEAR DUBLIN

The following paper was read by the Author :—

NOTES *on some* IRISH ANTIQUITIES.

By A. L. LEWIS, M.A.I.

THE country round Dublin is considered by Irish Archæologists to be comparatively destitute of rude stone monuments, but nevertheless contains as many as some of those districts of England and Wales which are most fruitful in them. Thus, in the Island of Howth, on the north side of Dublin Bay, in the domain of Howth Castle, are the remains of a dolmen called "Finn's Quoit." The capstone, the extreme measurements of which are fifteen feet long and broad by six feet thick, has slipped from its supporters, of which seven remain in different positions, besides fragments, and now leans upon some of them, with one edge resting upon the ground, forming what has been called a demi-dolmen; the supporters were from six to seven feet high, and may have enclosed a chamber ten or twelve feet long, by five feet broad, the long sides of which stood in a direction N.W.—S.E. It seems to me probable that when this and similar chambers were constructed, the uprights were first fixed and the surrounding cairn or tumulus heaped up level with their tops, forming an inclined plane up which the capstone might be dragged on rollers and then covered or left exposed as might be thought best: if this were so, and if the surrounding cairn were afterwards removed, the uprights deprived of its support would be very likely to give way and let the capstone slip into just such a position as "Finn's Quoit" now occupies.

Turning to the south side of Dublin, in the grounds of "Mount Venus," a domain on the top of the hills, seven or eight miles from the city, is a large stone, twenty feet long (in line about N.W. and S.E.), ten feet broad, and three thick, leaning against an upright stone, eight feet high, and from three to five feet broad and thick, and forming, like "Finn's Quoit," what is sometimes called a "demi-dolmen." There are, indeed, some difficulties in the way of a restoration of this particular monument as a chamber, and, if there should be many monuments of the kind, it might be well to re-consider the possibility of their having been a special class by themselves. The difficulties in this case are that, while the position of the great capstone and the hollowing out of the ground indicate that the site of the chamber when perfect was on the north-east side of the upright stone, three other stones, which might have helped to support it, and which are all, except one fragment, that are

now visible, are on the south-west side of the upright stone ; the largest of these (fourteen feet long, four and a-half broad, and two high), is moreover not of a suitable shape for a supporter of the larger stone, but might have answered very well for an altar, and it is possible that this might have been a "free-standing" dolmen or demi-dolmen with an altar in front of it—a place of sacrifice rather than of burial. The old man who drove me to the spot intimated that the visit to it was likely to lead to a double increase of my family, and this, coupled with the name of the hill, seems to point towards a tradition of phallic rites in connection with it.

About a mile from Killiney Station, on the line from Dublin to Bray, are some small remains known as the "Druid's Altar" and "Druid's Chair." The latter, in its present form, is evidently of comparatively recent construction, several stones (the different measurements of which vary from one to five feet), having been piled together and cemented into a rather imposing throne with arms and steps ; these stones may originally have formed part of a circle surrounding the so-called "altar," which stone and another are from twenty to thirty feet from the "chair," and appear to be in their original position. The "altar" is nine feet and a-half long, four and a-quarter above ground, and one thick, and has a deep notch in the middle in which it is said the neck of the victim was placed on the occasion of a sacrifice,* one side of this stone faces nearly north-east, and looks towards a round-topped hill now surmounted by an obelisk, and, if it were the central stone of a circle, it might in this way give that special reference to the north-east which I have so often found to exist in England, and would do so in a manner similar to the circle at Penmaenmawr, described by me in the "Journal of the Anthropological Institute" in November, 1877 ; the back of this stone is so shaped as to form two rude circles, which may represent the double disc found on inscribed stones in Scotland, and supposed to be a solar emblem, and the notch already referred to is the division between the two circles. Part of the fence enclosing these stones (at a distance of about forty feet), consists of a small bank of earth faced with loose stones, and may be the remains of an original enclosure.

Perhaps the finest dolmen near Dublin is that in the "Druid's Glen," Carrickmines, where five upright stones of considerable size support, at a height of five feet from the ground outside, a capstone, seventeen feet long, fourteen and a-quarter wide, and from two to five thick, forming a chamber about ten feet square, the interior of which is three feet below

* Many other harrowing but quite imaginary details are narrated concerning these stones in the guide-books.

the level of the ground outside; several small stones forming a square on the east side of this chamber are probably the tops of the stones of a second chamber now filled with earth; if this be so this dolmen would very much resemble that at Plâs Newydd in Anglesea, except that the Irish dolmen is in all twenty-six feet long, while the Welch dolmen is only twenty feet long, and that the former bears about due east and west, the larger end being at the west, while the latter bears a little east of north, the larger end being to the north-east. Besides the supporting stones I have mentioned, there are three others which formed part of the chamber, and it is noticeable that instead of being in a line the stones forming the sides of the chamber overlap each other; the "Trevethas Stone" in Cornwall is the only other example of this peculiarity of construction that I am able to point out at present. The Carriekmines dolmen is situated in a valley near a small stream, in opposition to the general rule, according to which such monuments usually stand so as to command a good view of the surrounding country, if not actually on the top of a hill.

Several other monuments of the kind are said to exist near Dublin, and, so far as I could make out (for the indications I could get of their whereabouts were not very precise), principally in the same district as those last described. Thus, two circles are said to stand somewhere near Tallaght, and dolmens at Kilternan and Shankhill, and the remains of one near Sandymount, while another brought from some other place stands in the Zoological Gardens in Phoenix Park. I should have liked to have visited some of these, but a variety of circumstances prevented me from doing so.

* * * * *

The largest of the Irish domed sepulchres is the great New Grange tumulus, situated between Navan and Drogheda, and about five miles from the latter; this is said to be seventy feet high, and has a gallery sixty-three feet long, having twenty-two stones on one side, and twenty-one on the other, varying from two feet and a-half high at the entrance to seven next the termination, which is a domed-roofed chamber, with three recesses, the walls of which are formed of eleven stones, the dome and the roof of that end of the gallery nearest to it being made of stones projecting one over the other till they meet at the top, while the passage at the entrance is only two feet and a-half high by three feet and a-half wide, and is spanned by a single stone. The passage bears about twenty degrees west of north by compass towards the chamber, so that the entrance is about true south.

This tumulus and chamber have often been compared with

those of Gavv Inis, in the Mer de Morbihan, Brittany. I have visited both, and, though time did not suffice for me to take detailed measurements of either, I may with advantage mention some of the points in which they differ.

The differences which are most apparent are that the tumulus of New Grange is much larger than that of Gavv Inis, and its gallery longer, and that it is surrounded by a retaining wall of uncemented masonry, some five or six feet high, outside which is a bank of earth, of about the same height, outside which again was a circle of stones, of which ten or a dozen now remain, in various states of preservation, the largest being about seven feet high by four broad and thick, none of which surroundings appear to have existed at Gavv Inis. Amongst the less apparent differences may be mentioned that the gallery at New Grange runs nearly south and north, that at Gavv Inis nearly south-east to north-west; that the chamber at Gavv Inis is smaller, has no recesses, and has a flat instead of a domed roof; and here I may point out a coincidence between the shape of the Irish cross, in which the junction of the limbs is enclosed in a circle, and the ground plan of some of these Irish dolmens, where the central chamber answers to the circle and the gallery and recesses to the limbs of the cross. In England we have cruciform chambers, such as Wayland Smith, or that at Wellow near Bath, without a circular chamber, and crosses without the surrounding circle. At Gavv Inis nearly all the stones of the chamber and gallery are covered with markings, while at New Grange they are found only in the recesses to the right and left of the chamber and on two stones outside the gallery, and although there is a general resemblance in the character of the markings, yet in detail they are very different, the only ones which are the same being the zigzag marking which occupies in each dolmen the edge of one or more of the stones forming the floor or roof, and may have been the source from which the zigzag moulding so common in our earliest ecclesiastical architecture was derived. At Gavv Inis the general form of the markings is that of segments of concentric circles springing out of one another like a conventional representation of a fountain, while at New Grange, in some cases at least, the incised line starts from a centre and runs round and round it like a coiled watch-spring. Gavv Inis again has figures of its own, which are thought to represent stone axes, and has also a hollow in one of its stones with bars in front worked out of the solid stone, while New Grange has other figures on what are called the upper and lower lintels outside the entrance. The edge of the upper lintel is ornamented in relief with a chain of open lozenge-shaped figures, each of which has a bar connecting the

top and bottom angles ; an attempt has been made to connect this with the ornamentation of some stone and earthen vases in the Museum of the Royal Irish Academy, but they have the connecting line running from end to end of the chain of lozenges, and, as the lozenges are not always exactly joined, it may be doubted whether they are, on the vases, anything more than a double row of zigzag lines with a straight line between. On the lower lintel are four circular figures, originally in bold relief, but now much weatherworn, two of which are nearly two feet in diameter, the other two smaller ; these are formed of lines starting from the centre and curling round upon themselves, but the large pair, and I believe both pairs, are connected by lines at the side, very similar to those of the "double disc," which occurs on some of the Scottish stones, and has been considered to be a solar emblem ; a very similar marking, but smaller, is figured in the catalogue of antiquities in the National Museum of the Society of Antiquaries of Scotland on a stone from a "Piet's House" in Eday, Orkney (p. 115, G. 4). Col. Forbes Leslie in his *View of the Entrance to New Grange* represents six circles, whereas I only saw four, but he omits the connecting lines, which are of some importance, and which certainly exist. He also figures a double disc with sceptre from Aberdeenshire, the ends of which are ornamented with concentric circles or horse-shoes not unlike the Northumbrian rock circles. The tombs on the Loughcrew Hills, a few miles from New Grange, contain markings, some of which, according to Mr. Conwell's illustrations, resemble those of New Grange, while some more nearly resemble those of Gavr Inis than any I saw at New Grange, and others find no parallel in either place. In the recesses of these tombs are found large stones slightly hollowed out and covering nearly the whole floor of the recess ; these, so far as I know, do not occur elsewhere.

Mr. Gladwell, the hospitable master of Dowth Hall, near New Grange, invited our attention to a small chamber in his lawn of similar construction to that of New Grange ; the top stones of the dome have been removed, showing a chamber about eight feet in diameter and height, with three niches and a gallery of unknown length running a little south of east ; there are, I believe, many similar chambers within a short distance.

In Mr. Gladwell's grounds there is also a rath or fort consisting of an earthen rampart, six feet high inside, and in places as much as twenty feet high outside, enclosing a circular space about one hundred yards in diameter, and having entrances to the north, east, and west.

In the burial yard of the old Abbey Church of Slane, near Navan, are two rude stones which are locally supposed to mark

a "pagan's grave"; they are about four feet and a-half high, by two to three wide, and nine inches thick, and stand from four to five feet from each other in a line about east and west. These stones might well have formed part of a shrine-like chamber, like those in India described by Mr. Wallhouse, and like that on the Great Orme near Llandudno, and it has occurred to me that if such a shrine were there, on the top of the lofty hill of Slane, it might have led to the building of the abbey: a circumstance which needs explanation, as abbeys were usually built in valleys where land is fertile and water near at hand. The burial of a pagan *as such* in a Christian cemetery would be another circumstance which would require explanation, but such a shrine as I have imagined might well, after the building of the abbey, have fallen into ruin, and its remains have preserved only such a tradition of their origin as is conveyed in the idea of their marking a pagan's grave; this, however, is at best mere hypothesis, and the stones may not be of great antiquity, but may have derived their name from their unworked condition.

It is naturally difficult to touch on Irish antiquities without attacking the "burning question" of Round Towers. These have been thought by some to have been used as fortresses to secure the lives and more valuable portable property of those living near, in case of sudden invasion, and they may have been used in that way sometimes, but their form precludes the idea of that having been their original object. It has been thought by others that they were bell towers to the churches, to which it has been objected that the only bells used in early times were small handbells, and that there are no traces of the suspension of larger bells. To those who have looked upon them as observatories for planetary worship and divination, it has been objected that they are always situated in valleys, and to those who would have them to be fire temples it has been pointed out that the floors and stairs (if any) were of wood. Father Smiddy considers them to have been baptistries and compares them to the Tower of Pisa and baptistries at Florence, Ravenna, and St. John Lateran of Rome, and considers his theory to explain some obscure points in the old Irish rubrics. Some stress has been laid by those who uphold the Christian origin of the towers upon a figure over the door of the Donaghmore Tower, which is considered to represent the crucifixion. But it has been objected to this that the arms are straight instead of being slightly raised; this objection does not seem to me to carry great weight, since, if O'Neill's beautiful lithographs are to be trusted, very similar figures with the arms straight and not raised are to be found on the crosses. The whole argu-

ment, however, seems to me to be of but little importance, because I have no doubt that the frame of the doorway, including the figure, was built into the tower some time, and probably some long time, after its first erection.

A phallic intent has been seen in the round towers, as in almost every other ancient object by those who look for it, and it must be admitted that the shape of the towers gives much reason for the notion in their case. It may also be remarked that the Babylonians had towers in their temples, on the summit of which were altars.

I believe it is established that wherever a round tower has existed, an ancient church has stood close by, but there is no reason to believe that wherever an ancient church has existed, a round tower has also existed, which shows that the towers did not go to the churches, but that the churches went to the towers, or that if either were built before the other the tower was built before the church. This makes it probable that the towers were places of assembly, most likely for religious purposes in immediately pre-Christian times, and that the missionaries, in accordance with their known policy, built their churches close by them, and ultimately took possession of them, and while taking advantage of whatever prestige belonged to them converted them in all likelihood to such uses as they could conveniently be put to as storehouses, places of refuge from very short and sudden attacks, watch-towers, bell-towers (for handbells only), and perhaps even as baptistries, as suggested by Father Smiddy; the fact of the towers being cemented, and well cemented too, seems to me to be an argument against their being of much greater antiquity than Christianity, as we have no trace left of any cemented building in other parts of the British Isles of greater antiquity than the Roman period.

When, however, we consider the probable primary object and origin of these round towers, it seems to me that the first step is to inquire where any similar edifices are to be found. With the exception of one or two doubtful specimens in Scotland and Man, which, if really round towers, are practically part of the Irish group, and with the possible exception of the Italian baptistries claimed by Father Smiddy as identical both in design and purpose with the round towers, there are no ancient buildings like the latter anywhere in Christian Europe. If, however, we go to Mahometan countries our attention can hardly fail to be attracted by the minarets, which are more inseparable companions to the mosques than the round towers are to the Irish churches, and which resemble the towers in appearance as well as in situation, the principal difference being that the minarets generally have galleries outside. I

am not going to infer from this similarity that Mahomet was an Irishman (though I am not sure that he may not have been claimed as a Scotchman), nor that any colony of Mahometans ever settled in Ireland, but I do think it probable that the minarets and the round towers are developments of the same idea. The Mahometans must certainly either have invented minarets or have borrowed them from some previously existing form of paganism—if the latter, the Irish towers were probably derived from the same source, but if the minarets were a Mahometan invention there must have been some idea at the bottom of that invention, which idea might have been developed in the same manner in Ireland, although in another form of religion. Without attaching too much importance to the Irish traditions, which nevertheless ought not in my opinion to be entirely ignored, I may mention that some of them attribute the round towers to a people coming from the north of Africa, a locality from which the Mahometans might well have derived their minarets and their custom of summoning the faithful to prayers from them. It is surely not unlikely that some such custom may have prevailed in some part of Northern Africa and in Ireland, and that the voice of the pagan muezzin may have been emphasised by those little handbells, which are not unlike the African bells of the present day, and the use of which was, like so many other modern Christian forms and customs, undoubtedly derived from paganism of some kind. I am aware that this suggestion can only be looked upon as a hypothesis until the particular form of African paganism which I have imagined can be proved to have existed, and until the descent of the minarets and round towers can be actually traced to it, and I am also aware that in advocating this or any other hypothesis about the round towers I am sure to lose, in some quarter or other, any little credit as an archaeologist which I may previously have enjoyed.

DISCUSSION.

MR. HYDE CLARKE said it appeared to him there was value in Mr. Lewis's suggestion in the connection between round towers and minarets. The round tower may, or may not, have anything to do with the minaret; but Mr. Lewis asked how came the Mahometans by the minaret? It was most naturally suggested that this Mahometan practice was borrowed from an older one. Jewish it was not, and at that epoch it could scarcely have been distinctively Christian. Like the Kaaba, and many other things, it may have been local and pre-Islamitic. The minaret in this day is always attached to a mosque, but a church is not always attended by a round tower. It is possible that the minaret and the round tower, as proposed by

Miss Buckland, may have called people to worship in an open place. For himself, he knew nothing of the origin of the minaret, and must leave it to the competency of Islamitic scholars. He was more strongly impressed than before by the attention which Mr. Lewis had directed to the stone outside the circle and thought it must be of importance. The emblem of the crescent, for example, is commonly attended by a star.

MAY 27TH, 1879.

E. BURNET TYLOR, Esq., F.R.S., *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The following presents were announced, and thanks were ordered to be returned to the respective donors:—

FOR THE LIBRARY.

From the AUTHOR.—French Accent. By A. H. Keane, Esq.

From A. H. KEANE, Esq.—Wallace's Australasia.

From the AUTHOR.—The True Theory of German Declension and Conjugation. By A. H. Keane, Esq.

From the AUTHOR.—The Devonshire Ash-tree Charm. By W. Pengelly, F.R.S.

From the ASSOCIATION.—Journal of the Royal Historical and Archæological Association of Ireland. No. 36.

From the ACADEMY.—Atti della R. Accademia dei Lincei. Vol. III, No. 5.

From the EDITOR.—Revue Internationale des Sciences, No. 5.

From the EDITOR.—Revue Scientifique, Nos. 46 and 47, 1879.

From the EDITOR.—Index Medicus. Vol. I, No. 4.

E. W. BRABROOK, Esq., F.S.A., Director, read a paper by HODDER M. WESTROPP, Esq., entitled "Notes on Fetichism." The Director also read a communication from JOHN MATHEW, Esq., entitled "Letters to Professor Max Müller on the Kabi Dialect of Queensland."

JUNE 10TH, 1879.

HYDE CLARKE, Esq., F.S.S., *Vicè President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The Election as a Member of W. WAVEL, Esq., late of the Bengal Civil Service, was announced.

The following presents were reported and thanks were ordered to be returned to the respective donors :—

FOR THE LIBRARY.

From the EDITOR.—Archiv für Anthropologie. April, 1879.

From the SOCIETY.—Proceedings of the Royal Geographical Society. Vol. I, No. 6.

From the SOCIETY.—Proceedings of the Royal Society. Vol. XXVIII, No. 195.

From Miss BUCKLAND.—Journal of the Folk Lore Society. Vol. I, Parts 1 and 2.

From the EDITOR.—Revue Scientifique. Nos. 48 and 49, 1879.

From the EDITOR.—“Nature” (to date).

The following paper was read :—

NOTES on some CORNISH and IRISH PRE-HISTORIC MONUMENTS.

By Miss A. W. BUCKLAND.

A RESIDENCE of some months in the extreme west of England has convinced me that although much has been written respecting the ancient monuments of Cornwall, the subject is still far from exhausted. I have therefore supposed that a brief comparison between those existing in the Cornish Peninsula and those in Ireland, assigned by most antiquaries to the same race, may not be altogether devoid of interest, and may perhaps lead to a fuller investigation of the similarities and differences existing between them, as illustrative of the manners and customs of those pre-historic races or tribes, which have together, or in succession, occupied these lands.

The sepulchres of a country are always of especial interest, as illustrating the religious beliefs and every-day life of races, many of which can now be traced only by these remains; and since the rites of sepulture are adhered to with great pertinacity

by rude and semi-civilised peoples, the probability is great that when we find sepulchral monuments varying in structure placed side by side, we see the remains of distinct races, or at least of different tribes, who have, either together or at different periods, occupied that spot.

The sepulchral monuments of Cornwall may be divided into Tumuli—including chambered barrows or 'Giants' Graves—Monoliths or Menhirs, some inscribed—Circles,—Cromlechs or Dolmens, locally called Quoits,—and perhaps Holed Stones. These all have their counterparts in Ireland, yet not without differences, which are probably significant of changes in time, if not of race, and when we come to examine the non-sepulchral remains, which in Cornwall we may reckon as consisting of Hut Circles, Cliff Castles, Caves and Crosses, the differences are yet more marked; whilst the Round Towers, and I think also the Rathes of Ireland, seem to be altogether wanting in Cornwall.

The first noticeable point in the sepulchral remains of the two countries under consideration, is the absence from both of the long barrows which are considered to represent the tombs of the earliest inhabitants of Great Britain, or rather of the earliest *tomb builders*, because I believe as yet no tombs have been found of that early palæolithic race, which undoubtedly inhabited some parts of Britain at a period not long subsequent to the Glacial Age. I do not know that any trace of this very early race has been discovered either in Cornwall or in Ireland, and the absence of long barrows, which are usually referred to the later neolithic period, would seem to denote that these countries remained uninhabited until the age of bronze. We must, however, remember that tumuli were only erected over chiefs or great men, and therefore probably were not reared at all until a sort of ancestral worship had developed itself among men, and this presupposes a state of warfare, since chieftains honoured in this manner were usually so honoured as having distinguished themselves in battle, therefore their presence would seem to signify the intrusion of a foreign and hostile race, causing battles and slaughter; although whether the tumuli were the graves of the intruders or of the original inhabitants, must, at present, remain doubtful. But it is by no means certain that the tumuli in Cornwall and Ireland represent the *earliest* tomb builders, for in both countries, menhirs, circles, cromlechs, and chambered tumuli or giants' graves abound, and these, although not peculiar to Great Britain and Ireland, certainly represent in these countries very ancient modes of burial.

Menhirs.

"The very early pre-metallic Irish," says Sir William Wilde,

"probably the Firlbolgs, buried their dead lying at full length, in a stone sepulchre covered with a huge monolith . . . The sarcophagi in which these early Irish people were entombed with flint weapons and shell ornaments but no remains of metal, were originally covered with mounds of earth." * The skulls of the race thus interred he describes as being "remarkably long from before backward, and somewhat flattened at the sides, with strongly marked features, square orbits, and thick brows, high cheek bones, projecting mouths and teeth, long lower jaw, a narrow square pointed chin, and a high prominent nose, not unlike the heads of inferior races figured on some of the very early Etruscan potteries, and all indicating a dark visaged dark haired man, who probably had a deep-set, bright blue, or light grey eye, so characteristic of the Irish Celt."† I do not think this long-headed race has been traced in Cornwall, where cremation seems to have been the ordinary mode of burial, since most of the interments under the great menhirs which abound there have been found to consist of burnt bones, either in urns enclosed in cists, or frequently without either. Mr. William Copeland Borlase says "extended burials are very rare in Cornwall, and of contracted burial only one authentic instance can be cited."‡ Although in most cases the gigantic standing stones wherever found, mark the sites of graves, this is not invariably the case, for of "the Pipers," two huge Cornish monoliths, Mr. Borlase says he could find no trace of a sepulchral origin after careful examination. These "Pipers," which measure 15 feet and 13 feet 6 inches in height, stand 85 yards apart, pointing north-east and south-west, and about 260 yards in the latter direction lies the circle called the Nine Maidens, or popularly the Dance (Dawns) Maidens, with which they are traditionally associated, since the legend says the Dance Maidens were girls turned into stone for dancing on Sunday, the "Pipers" having been the musicians on that memorable occasion. Another tradition makes these stones to mark the position occupied by the Kings Howel and Athelstane who here fought a great battle.

Thirteen huge monoliths, mostly granite, still stand in that remote corner of England lying between Penzance and the Land's End, whilst many have doubtless been destroyed, and some have been converted into crosses, a process which Borlase traces also to Ireland, where, he says, "some of these stones erect have crosses cut on them, which are supposed to have been done by Christians out of compliance with the Druid prejudices." The same writer gives two curious quotations from ancient

* "Ireland Past and Present." Sir W. R. Wells Wilde.

† *Ibid.*

‡ "Nannia Cornubiae."

authors as to the use of these menhirs. "Demetrius Phalereus" he says "ordered in Athens that no person for the future should have a stone on their tumulus higher than three cubits, and Olaus Magnus tells us that it was one of Woden's laws to erect high stones on the graves of famous men."* Here then we see an extension of the same custom from south to north of Europe, and there can be no doubt that the majority of those still to be found in Cornwall and Ireland were erected as sepulchral monuments, although some were perhaps boundary or simple memorial stones. In both countries they seem unusually numerous, a point perhaps of ethnological importance, as although they are roughly hewn from stone abundant in the neighbourhood, it must have required both skill and numerical strength to hew them, however roughly, and erect them in their present positions, where they are buried many feet in the ground to secure their permanent uprightness. Three stones in Cornwall, much inferior in height and size to the thirteen before mentioned, bear inscriptions in Roman characters, but all the rest are, as far as I can ascertain, perfectly plain, unpolished and ungraven,† standing mostly upon high ground but not *on* tumuli, although in some cases tumuli have been found in connection with them.

Circles.

Although few archaeologists will accept Mr. Fergusson's dates as to the period to which the rude stone monuments in Britain are to be assigned, yet probably there is a germ of truth in the theory which makes lines and circles of standing stones to represent fields of battle, and the graves found beneath them to be those of chieftains killed in the battle represented. That circles generally have a sepulchral character can scarcely be gainsaid, although whether that was the only or chief reason of their erection may fairly be doubted.

Mr. Borlase‡ tells us that only one interment has been found in Cornish circles, and since nine of these circles still exist within the limited space already named between Penzance and the Land's End, it may fairly be assumed that sepulchre was not the chief object in the erection of the Cornish circles. The stones composing the circles, as well as the circles themselves, in Cornwall are small, compared with those in many parts of Britain; they are generally known locally as "the Nine Maidens," and consist for the most part of nineteen stones, sometimes

* "Antiquities of Cornwall." Borlase.

† Mr. Borlase in a recent letter to the "Athenæum" mentions the discovery of cup-markings on one of these menhirs.

‡ "Nenia Cornubiæ."

supplemented by one in the centre, and they have no avenues. Mr. Borlase mentions one set of nine maidens, that of Saint Breock, which do not form a circle but consist of nine erect stones, from 11 feet to 5 feet 6 inches high, forming a single line north-east and south-west, with a menhir called the Old Man in the same line, which may, perhaps, be part of an avenue, and under some of these burnt bones, without urns, have been found; but undoubtedly the majority of the Cornish circles are devoid of those avenues leading to the entrance which are commonly found elsewhere.

Canon Greenwell* has remarked upon the studious incompleteness of most of the circles, especially of those intended for sepulchre, but I do not think this is applicable to the Cornish circles, where the stones appear to have been arranged at equal distances, so that it is not easy to discover the entrance; and this perhaps is an additional proof that they were *not* intended for sepulchre. The Irish examples, on the contrary, seem to follow the rule observed elsewhere; they most of them enclose one or more sepulchral chambers and have short avenues attached. In both countries it may be remarked that although the numbers of these monuments greatly exceed those in the remainder of the kingdom, yet in size they cannot be compared with such structures as Avebury and Stonehenge. Whatever may have been the religious, astronomical, or other design of these singular structures, they must at present be set down among the enigmas of archaeology, although their analogy with monuments still erected in India would lead to the conclusion that they are memorial stones in some way connected with ancestral worship.

Cromlechs.

Of Cromlechs, locally known as Quoits, Cornwall possesses some very fine specimens. Some of these were formerly covered by a tumulus, but others standing on elevated ground were probably always uncovered, since the surrounding country is heath land, and quite uncultivated. The stones of these cromlechs vary in size and in number, but Borlase records the fact that two of the largest, those of Zennor and Mulfra, are of the same size, and point in the same direction east and west. Numerous as are these monuments in Cornwall, they cannot be compared numerically with those in Ireland, where they abound in such profusion that we are told in one township, that of Carrowmore, there still exist sixty circles and cromlechs, "the largest collection" says Dr. Petrie "of monuments of this kind in the British Isles, and probably, except Carnac, the most remarkable in the

* See "British Barrows," by W. Greenwell, M.A., F.S.A. p. 6.

world.”* Some of the Irish Cromlechs have been denominated primary, because the covering stone rests on the earth at one end and is supposed never to have been raised from the ground, the blocks of stone forming the covering being enormous; but others think that from the stones lying round, they were at one time of the free standing order, the supporting blocks having simply been displaced. These cromlechs are locally known as beds of Dermid and Graine (Dermot and Grace), and are said to number 366, and it is remarked that they are mostly found in pairs and on the sea coast. That they are sepulchral is certain, as under all which have been explored have been found chambers or kistvaens of different sizes containing either burnt bones in urns, or burials in a contracted position.

Chambered Tumuli or Giants' Graves.

Under the name of “Giants' Graves” must be included those great chambers generally covered with a vast mound of earth, of which many examples are found both in Cornwall and Ireland, and wherever found they are known by the same name, “Giants' Graves.” In construction they seem to resemble a series of cromlechs, but some, as those of Castle Euny in Cornwall and the gigantic and well known New Grange and Dowth in Ireland, assume the proportions of a dwelling for the living. I had the opportunity of visiting New Grange last year, under the able guidance of Mr. Wilde, and can say truly that the reality more than fulfilled the expectations I had formed of it. The stupendous mound of which the chamber itself occupies a very small portion, the circle of enormous blocks of stone surrounding it at equal distances, the great masses forming the entrance, sculptured with that spiral ornament supposed to be peculiar to the bronze age, fill the spectator with wonder at the labour necessary to rear so vast a monument. Creeping in on hands and knees, we find huge upright blocks varying in size from 2 feet to 7 feet in height, and from 2 feet to 3 feet 6 inches in breadth, lining the entrance passage on both sides, and gradually approaching each other, until at one point farther progress is a little difficult. This point past, the passage widens and rises, so that it is soon possible to stand, and you find yourself in a chamber nearly circular, with three side compartments, two of them containing large stone basins or dishes, on or under which I believe the bodies of the entombed were placed. The roof of this chamber is of the beehive construction, each stone overlapping that beneath, the centre being closed by a large flat stone 3 feet 10 inches by 3 feet 5 inches. But the chief interest is centred in the

* “Ireland Past and Present.” Sir W. Wilde.

abundance of sculptures which cover many of the blocks, both at the entrance and in the interior, but placed apparently without border, and having no recognizable sequence.

At a recent meeting of the Institute, Mr. Lewis exhibited rubbings of some of these singular markings which from the position in which they are found were evidently sculptured before they were placed in their present position, and indeed indications are not wanting that some of the blocks are perhaps more profusely ornamented at the back which is covered by the earth, than on the side exposed to view.* This has led some antiquaries to suppose that these sculptured stones originally belonged to some other building—perhaps the palace of some conquered king destroyed to form the tomb of the conqueror, a conjecture rendered more probable by the fact that huge blocks similar to those at the entrance appear to have been used in forming the foundation of the surrounding wall, several of them being exposed on the north side, whilst the wall itself although constructed without mortar, is far from Cyclopean in character. I could not ascertain whether these great supporting stones were sculptured, but if so, the figures may very probably be on the inside, as the builders of this great tomb seem either to have treated the sculptures with indifference, or to have held some superstitious views regarding them, which led them to look upon their presence as necessary, but their position as immaterial. With regard to the inscription which has been so often drawn, my own impression was that it had been added at a later date, but to this I hope to refer again.

Within a stone's throw of New Grange exists an ancient building which does not seem to have received the attention it deserves. Although from the use of mortar in its construction it is evidently of later date than the adjacent monument, it yet resembles it so much in general features as to strongly exemplify the belief that the tombs were reproductions of the houses of the living. The beehive roof with large wedge in the centre is, with that exception, the same; the great central room with smaller recesses are similar, but the huge blocks and sculptures of the tomb are wanting, and two or three peculiar shaped windows appear to have been pierced in the solid masonry, perhaps at a later period. I regret that time did not allow of my taking a sketch of this building, but I brought away a small portion of the mortar, which has been analysed by Mr. Charles Moore, of Bath, who looks upon it as of considerable antiquity, somewhat roughly welded together, the materials having been brought apparently from the sea-shore or the river.

* See "*Archæologia*," vol. ii.

Holed Stones.

Passing now to the curious and enigmatical holed-stones so numerous in Cornwall, thirteen being enumerated by a local antiquary, Mr. Millett, of Bosavern, to whom I am much indebted, as known to him within the district already alluded to west of Penzance. Both holes and stones differ greatly in shape and size, the holes varying from one not larger than a half-crown to the Men-an-tol, the dimensions of which are given by Borlase as 1 foot 2 inches in diameter, and the size of which will be better understood if I say that I crept through it with ease. Local superstition still ascribes a curative property to this stone through which people creep for rheumatism. Whether this is a lingering reminiscence of a time when this stone held a place in the worship of Apollo or whatever may have been the designation of the ancient British God of healing, representing or represented by the sun, I know not, but the position of this stone and its two accompanying monoliths, is certainly suggestive of some such origin.

The stone is evidently placed with much care, looking north-east and south-west, and the pillar-stones stand to the right and left at equal distances as if to guide the eye in a particular direction in looking through the hole, which is also carefully bevilled on one side only, so as to make access easy on that side looking towards the south. It is true other stones lie about as though they might have formed some structure, but I could not make of them anything resembling a circle. I know of no other holed stone to be compared with this in Cornwall, but am told there is one near Chagford, in Devonshire, like it in the size of the aperture, and also in the two guardian or sentinel stones, standing in precisely similar positions, only in that the stone stands higher from the ground and therefore could not be so readily crept through as the Men-an-tol. I do not think it would be possible to pass even an infant through any other of the holed stones I have seen in Cornwall, and they must therefore have been designed for some other purpose. Borlase speaks of libations poured through holed-stones in Scotland, in honour of the spirit Brownie, who is supposed to be the guardian of bees, which are regarded with superstitious reverence both in Scotland and in Cornwall, but I never heard of libations being poured through these Cornish holed-stones, which with the exception of the Men-an-tol are regarded with the greatest indifference, and are frequently found built into walls and hedges, being unknown and unheeded; yet in the course of a morning's walk, Mr. Millett, of Bosavern, pointed out four to me, all differing in

size and form. They may of course have served some unknown domestic purpose, one very similar having been found at Twr, in Holyhead Island, forming one of the covering slabs of a drain; but since its use there is problematical, it is probable that it was simply used as being of convenient size and form, after the religious or domestic purpose for which it had been constructed was forgotten. Fergusson speaks of the oath of Odin taken in Scotland by joining hands through a holed-stone, and speaks of one in Stennis, but does not give the size and form of the hole. The only one figured in Stuart's splendid work of Scottish sculptured stones, is oblong and roughly cut, whereas all the perforations in Cornish stones are perfectly circular, and the holes appear to have been formed in a way peculiarly interesting, as resembling that adopted by the Swiss Lake dwellers—that is, a core was taken out instead of clipping away from the centre. I have seen two examples in which this process remains incomplete. In one, used in building a hedge, there is a perfect hole, whilst the circle only has been marked out for another of the same size close to it. A similar mode was evidently adopted in some of the crosses in which holes appear accompanied often by balls formed in the same manner.

Mr. Wakeman gives a drawing of a holed-stone from Devenish, but like those of Scotland, the Irish examples seem to have been differently constructed and not so neatly fashioned. Of it he says: "In this curious relic we find an example of the artificially perforated stones commonly called 'hole-stones' which are generally associated in Ireland with pre-historic remains, and are occasionally found in connection with our earliest, and only earliest, ecclesiastical establishments. What they were intended for no man can say. It is highly probable that they had their origin in days most remote, and that somehow or other, perhaps like the 'holy wells,' they became as it were pressed into association with Christian rites." He gives examples of these holed-stones as existing in Castledermot, county Kildare, Kilmalkedar, Kerry, Kilbarry on the Shannon, and at Devenish, Lough Erne, and says: "The virtue of the Kilmalkedar stone was some thirty years ago equal in repute to that of Stennis, and even in some respects superior; for it was further firmly believed by many of the old inhabitants of Kerry that persons afflicted with chronic rheumatism, falling sickness or other ills,*

* The superstitious belief in the cure of diseases, and especially of epilepsy, by these stones, would seem to denote some connection with those curious trepanned skulls of the neolithic age, so ably described by Dr. Broca, and of which so many examples exist in the Museum of the Anthropological Society in Paris. These holes Dr. Broca believes to have been made for the cure of epilepsy, and he shows that amulets taken from a skull thus trepanned were greatly esteemed as a potent spell against sickness or disease. It seems, therefore, far from impro-

might by passing three times round it (with faith, and by the offering of certain prayers) be restored to health."* These holed-stones exist also in France, in Cyprus, and in India, where, Mr. Welford says, "devout people pass through them when the opening will admit, in order to be *regenerated*." If the hole be too small they put the hand or foot through it. Those familiar to us from drawings form the entrance to certain cromlechs, chiefly in the Kassia hills, and their use is supposed to be to allow of the passage of the soul of the deceased, probably in the form of a snake, as I suggested in a former paper; but the Cornish holed-stones are too small and too varied in form ever to have served as the door of a cromlech: they are usually oblong, slightly rounded at the upper corners, but often square, and in one instance round. Some antiquaries have suggested that as they are frequently found near circles, they may have been used for tying victims prior to their sacrifice, and the Irish MS. known as the Book of Leinster tells us that "Eochy the first Christian king of Leinster, having provoked the anger of Niall of the Nine Hostages, was taken by the latter monarch and chained to a stone. Eochy breaking the chain escaped."†

Before concluding this subject it may be well to point out the great similarity existing between two dolmens, figured by Fergusson: one at Plas Newydd, Wales, and one at Coorg. In both these instances, double holed-stones appear at the entrance to dolmens, but in both cases the holes assume the horseshoe shape, and the circle is not complete; a similar shape to this is seen in Swedish tombs.‡

Beehive Huts.

Turning now to non-sepulchral pre-historic remains, we find in Cornwall numerous beehive structures attributed with reason to the early British inhabitants; these are generally found in clusters or villages surrounded by a wall. Most of these have been described by Mr. Wm. Copeland Borlase, but by the kind-

bable that a lingering belief in the efficacy of the holed skull may have attached itself to holes similarly made in stones looked upon as sacred. The hole in the skull was made for the escape of the troubled spirit: the hole in the tomb had the same signification; why, therefore, should not the spirit of disease be exorcised by being compelled to pass through a holed stone?

* "Journal of Hist. and Archæo. Association of Ireland," 1874-75.

† "Guide to Belfast and adjacent Counties," p. 199.

‡ Since writing the above I have seen in the moat of the Castle of St. Germain, near Paris, removed I believe from Brittany, a holed stone strongly resembling the Men-an-tol (both in shape and size of aperture) which forms the entrance to an *allée couverte* or chambered tumulus, so that it is possible that the Men-an-tol may also have served the same purpose originally, the two pillar stones having been added at a later date for some religious or superstitious purpose.

ness of Mr. Millett, of Bosavern, whose name I have before mentioned, I was taken to a cluster not already known or described. This group is situated on a hill in the parish of St. Just, in Penwith, near to many of the "old men's workings" as they are called, and close by are ancient terraces, such as are found in many parts of Cornwall, and always near these clusters of huts, proving the dwellers therein to have been agriculturists. The walls of these huts are thick, and built of small unhewn stones placed carefully together without mortar, and at the entrance to each stand two pillars, perhaps originally capped by a stone lintel, but whether the structures were roofed with turf, or whether the beehive formation was carried out in its entirety and capped by a single stone, it is difficult now to decide. They appear to be identical in form and structure with the Irish cloughan which Sir Wm. Wilde describes as "a small circular domed or beehive-shaped dwelling, formed of overlapping stones, each row corbelled on the other, and having a low entrance not unlike the huts of the Greenlander and Esquimaux," and it may be added of the Kaffir races also, although the material used in their construction is different.

The Irish cloughans abound, we are told, in Kerry and Arran, and it would be interesting to know whether here also ancient agricultural terraces are to be found.

Cliff Castles.

The next class of monument to be noted is the Cliff Castles of Cornwall, as compared with the Irish rath. In both countries these remains are ascribed to the Danes, yet there are essential differences between them which would seem to militate against the probability of their being the work of one people. Almost every hill in Cornwall is crowned by one of these fortifications; the most perfect of those remaining, Chun and Castle an Dinas, show us two or three circles of loose stones piled together without being fitted or joined by cement, yet forming a strong cordon round the hill-top, where probably the chief and his followers had their huts, although all traces of them have long since disappeared. Whether these walls were ever of any considerable height it is hard to say, at present they would offer no great barrier to any determined body of men. The whole hill of Castle an Dinas, below the fort, is strewn with great boulders and loose stones, which may formerly have formed part of the walls; but if so it seems remarkable that the circles should be still so perfect without showing traces of greater elevation at certain points. At Treryn, which is on the coast, there are more evident traces of care in the arrangement of the stones, which, if

I mistake not, were joined together by earth or some sort of cement. The very small portion of the masonry remaining is on the landward side, so that the builders might well have been sea rovers defending themselves from enemies on shore; but it seems unreasonable to suppose that they could construct works of such magnitude as the Cliff Castles in the midst of an enemy's country, the quantity of stones required being enormous, and some of them of great size; and I believe similar works are found in Wales and Scotland, and other places where Danes have never been. The Irish raths appear to differ in many respects from the Cornish Cliff Castles inasmuch as they are usually gigantic earthworks only, not always surrounding a hill-top, but generally enclosing a series of subterranean chambers, used either as dwellings or granaries. Caves of a similar character are found in Cornwall, but not, so far as I know, in connection with the Hill Castles; the only one of which resembling an Irish rath is thus described: "Bartiné Hill is one of a chain of eminences near the Land's End, which command extensive views over the English and Irish Channels. On its summit is an ancient earthwork consisting of a circular mound or vallum slightly elevated above the natural soil, and a ditch."* The Cornish Hill Castles seem to me to resemble more nearly the Irish Cashels, which Mr. Gray, of Belfast, describes in a letter to me as circular raths, but formed of stone, the walls being sometimes 12 feet thick and 9 feet high, containing generally chambers within the thickness of the wall; the masonry, however, of the Cornish Castles seems ruder than that of the Irish Cashels, and I have never heard of any chambers within them.

Crosses.

Of the crosses, so numerous both in Ireland and Cornwall, I have not time to say much; their general resemblance is too striking to escape observation, but it appears to me that the Cornish examples are generally ruder than the Irish, and I do not think that the short round crosses without shafts, so common in Cornwall, are to be found in Ireland, although some very rude short Latin crosses are figured in the "Guide to Belfast;" and I may remark that the peculiar figure so often found on these crosses, and so authoritatively pronounced to be decisive of their Christian origin, is given in the "Handbook of Archaeology," as found upon ancient boundary stones.

Of the mysterious Round Towers of Ireland, no trace is found in Cornwall, the supposed resemblance to them in Launceston

* 'On Cornish Hill Castles,' by W. Cotton, Esq., M.A. "Archæologia," vol. xxi., pp. 300-6.

Castle having been satisfactorily disproved, and their absence is the more remarkable and significant, when we remember that the early Irish saints are very largely associated by tradition with the conversion to Christianity, of the inhabitants of Cornwall; so that if we are to accept Dr. Petrie's theory of the Christian origin of these enigmatical monuments, their absence from a country in other respects so nearly associated with Ireland is certainly strange. As far as I am aware there is also an entire absence in Cornwall of the stones bearing Oghams, so frequently found in Ireland. As I have before remarked, the menhirs of Cornwall are rough and entirely unsculptured, with the exception of three, which bear inscriptions in Roman characters, and one in St. Hilary churchyard, upon which are some singular markings set down as masonic signs, with *noti noti* under them in Roman letters. Upon some of the crosses also are found peculiar signs of which no explanation can be given, although doubtless they had a meaning at the time these monuments were erected. There is one proof of the intercourse which formerly subsisted between Cornwall and Ireland, which must not be omitted, which is the discovery near Penzance of one of those peculiar crescent-like ornaments of gold, of which so many exist in the Royal Irish Academy; this is figured in Lysons' "History of Cornwall," and will be found to be identical with the Irish examples.

All the monuments of which I have been treating are generally classed together as Celtic, but it seems to me scarcely possible to ascribe them all to one race, and some of them doubtless appear in countries to which the Celts were strangers. There is sorely needed, in the interests of Ethnology and Archaeology, a map of the world, giving the distribution of these several monuments. That they should be mixed in inextricable confusion in Great Britain and Ireland is not surprising, seeing the numerous races who have from time to time overrun the land; but if we can trace them to countries where they become separated, following the wanderings of certain peoples, a clear gain to the science of anthropology will result. A map of this kind is given in the *Compte Rendu* of the International Congress at Stockholm, 1874, representing the sepulchral remains of the polished stone age in Sweden, and by it we see at a glance that while the whole east coast of Sweden is quite free of these monuments, they exist in great numbers on the west and south coasts, and advance nearly to the centre of the land, but they are found almost entirely in separate groups, which rarely intermingle; thus the chambered tumuli are found massed together between Lakes Wenner and Wetter, a few being scattered on the south coast, and two only on the west, where as in the

south, dolmens without galleries, or cromlechs predominate largely. Between these two groups, but extending farther to the north, we find a great number of cists *not* covered with tumuli, and a few covered either with tumuli or cairns.

One lesson to be learnt by this distribution, and especially by their admixture on the south-west coast, would seem to be that they may be traced to a succession of emigrants arriving by sea, and subsequently finding their way to different parts of the country. A similar distribution is indicated in Scotland by Stuart's map of the sculptured stones depicted by him. They are all found on the eastern coast and not far inland, except a few near the Clyde and on Solway Frith. Probably in Ireland also the various nationalities which have helped to form the present Irish may in like manner be traced in a measure by the distribution of their monuments. Thus Sir William Wilde says: "The great cromlechs scattered by hundreds over the land are still chiefly to be found on the *coast*," denoting their introduction by a sea-faring race; and if we follow these monuments to the East, from whence undoubtedly they first came, we find them existing in great numbers and often in close proximity to each other, yet always with a certain line of demarcation between them. In Canon Tristram's "Land of Moab," this is very clearly shown. He says: "It is worthy of notice that the three classes of primæval monuments in Moab, the stone circles, dolmens, and cairns, exist each in great abundance in three different parts of the country, but never side by side, the cairns being found exclusively on the east, on the spurs of the Arabian range, the stone circles south of the Callirhoe, and the dolmens north of that valley; one cairn only surrounded by a circle of dolmens is found on the north-west;" and he adds: "This fact would seem to indicate three neighbouring tribes, co-existent in the pre-historic period, each with distinct funeral or religious customs."

Fergusson,* speaking of the distribution of these monuments (dolmens) in India, says: "They do not exist in the valley of the Ganges or any of its tributaries, nor in the valley of the Nerbudda, nor in fact in that part of India described as north of the Vindhya range of hills; they exist, though somewhat sparsely, in the country drained by the Godavery and its affluents, they are more common in the valleys of the Kistnah, also on both sides of the Ghats down to Cape Comorin, and in groups all over the Madras presidency." General Lane Fox says: "The geographical distribution of megalithic monuments is continuous or nearly so, extending from the Kassias in the north-east of India, to Central India, Persia, Asia Minor, the Crimea, along the north

* "Rude Stone Monuments," chap. xiii.

coast of Africa, bordering the Mediterranean.* They are found in Etruria, up the south and west coast of France into Britain, and as far as Denmark and Sweden. In so far as our present knowledge goes they were unknown in Russia proper, in Northern Asia, in Central and South Africa, and in America, except Peru.† Nevertheless it seems evident that although megalithic monuments exist in all these countries, they are yet found in groups suggestive of a difference in race and of time in their several builders. Under the convenient appellation of Celts many distinct peoples seem included; Sir William Wilde recognises a long-headed Celtic race, with whom he classes the Firlbolgs of early Irish historians, and a round-headed people of the same race, whom he looks upon as Tuatha de Dannans; and after describing the first race as peculiarly long-headed with projecting jaws and probably dark hair, with blue eyes like the Irish Celt of the present day, he goes on to speak of an interment in a kistvaen under a cromlech, in which the body was found in a crouching attitude, the head being round, “an intellectual refined specimen such as the finest Caucasian.” Yet both these he looks upon as belonging to separate branches of the same Celtic or Scythic race, coming successively from the East, both having the same Druidic faith; similar superstitions and burial rites, and both, when they come in contact with each other in the famous battle of Moytura, as possessed of metallic weapons.‡ Craniologists would certainly not allow that skulls differing so widely as those described could belong to the same race; and thus it appears to me that a systematic examination of Irish monuments might lead to the discovery of some interesting ethnological facts. It is at all events worthy of remark that those who now in India build cromlechs, erect pillars and circles of stones, and construct miniature kistvaens are not the dominant Aryan race, but the dark skinned aborigines, descendants of the pre-Aryan occupiers of the soil, and that in every country westward, wherein these monuments are found, they are traditionally associated with a long forgotten race. It is remarkable too that some are assigned to giants and some to dwarfs. Sir William Wilde points out that every green-rath in

* MM. Tissot and Broca, in describing the megalithic monuments of Morocco, clearly point out the distinct groupings of the several varieties of these monuments, the dolmens being found near the coast, but never passing a certain line, being then succeeded by tumuli, some of which, surrounded by menhirs or circles, seem almost to rival New Grange. Farther south, again, appear menhirs and circles; but these are nowhere intermingled, one only occasionally appearing as an intruder among tumuli or dolmens.

† “Anthropological Journal,” 1875.

‡ See “Ireland Past and Present;” also “Lough Corrib and the Boyne.” By Sir W. Wilde.

Ireland is consecrated to the fairies or "good people," whilst the remains attributed to the giants are of a different character and probably of a later date.*

In Cornwall the traditions of "giants" are numerous, and represent probably the oldest population; these are however associated with natural phenomena, as the raising of sandbanks, the deposition of rocks, &c., but not with the abundant megalithic structures, except those which in all countries go by the name of "giants' graves or beds." The legends which make the circles metamorphosed human beings, and which are common also in England, are the only ones found in Cornwall, except in the one instance before mentioned, in which tradition speaks of a battle at Rosemoddress and Boleit, and affirms that "the Pipers" which have been proved to be non-sepulchral, represent the positions of the chieftains who are said to have been Howel and Athelstane.†

The position of these monuments is not always carefully noted by their explorers, but in the great majority observed it is marked as south-east, sometimes due east and sometimes south, whilst at Stonehenge and the Men-an-tol the monuments face north east and south-west. If, as has been asserted, Stonehenge is so placed as to catch the earliest sunbeam on the longest day, I think the Men-an-tol might be designed to watch the setting of the same luminary on the shortest day; it seems however to me probable that the position of these monuments, especially those which are sepulchral, has some reference to the point from which their builders came, either as emigrants or conquerors—an idea which suggested itself forcibly to my mind in examining the representations of the American mounds, where some of the images are reversed, evidently with some design of showing the locality of the chieftain owning the totem represented, and I believe that this mode of representing the tribal marks of chieftains on their monuments may serve also as a clue to the interpretation of those apparently confused hieroglyphs found upon the Scotch and Irish monuments, the total absence of which, in the Cornish monuments, is a fact full of significance.

Mr. Bonwick, speaking of the burial customs of the Tasmanians, says: "In Oyster Bay, on the eastern side, Piron found bones and cinders in the grass of a mound. On the bark covering it," he says, "they had deeply engraved some characters analogous to those which the natives employed in the tattooing of their arms;" thus I believe that in like manner the markings at Dowth, New Grange, &c., may be traced to the tattoo or

* "Lough Corrib."

† See "*Nænia Cornubiæ*." W. C. Borlase.

tribal marks of the Picts, or analogous tribes, although it must be observed that the engravers of the symbols were very evidently not the constructors of those great monuments, since it has been proved, as before stated, that the stones were certainly engraved prior to being placed in their present position, and probably formed part of a previous erection, the same having been observed also at Carnac.

With regard to the cromlechs, notwithstanding a certain resemblance observable everywhere, there are varieties which seem to point to their construction by different branches of the same race. In Ireland the prevailing type appears to be a gigantic block of stone raised from the ground on one side only; but this is rare, if not unknown, in Cornwall, where, however, the number of stones comprising the monument vary, whereas in India four stones, one perforated, forming a square vault, capped with a single large stone, is the rule, and this form is found in Kits Coty House. But in Moab, Canon Tristram tells us that without exception every cromlech consists of four stones only, three supports and one covering stone, and this form, which with the former is absent in Cornwall, is seen in the cromlech called the "Spinsters' Rock" at Drewsteignton, Devon; and the legend accompanying this monument—that it was erected by three sisters before breakfast in memory of, *I think*, their father or lover of one of them—has in it some apparent reference to the Fates, either Scandinavian or classical.

One other point I would wish to call attention to, and that is the frequent recurrence of these monuments in boggy or waste land. Of course it may be said that this proves them to have been erected by a conquered people driven for shelter to waste lands, but I do not think conquered fugitives would be able to find time and strength to erect these vast structures, especially when we remember that in most cases the stones composing them were brought from great distances. And I think the selection of these spots either prove their builders to have been an agricultural people who would not willingly waste profitable land, or that a considerable change has taken place in the surface of the country since their erection. That bogs have considerably increased in Ireland since its occupation by man is attested by the log hut found 14 feet below the surface in County Donegal, and that they have encroached in like manner in Cornwall is evident from the trunks of trees found 12 feet deep under Bostrage Moor, but in the latter county they do not appear to have increased to any great extent since the erection of these monuments, and the dwellings and cromlechs are often found on high ground, whilst all I saw in Devonshire are in swampy ground. This may perhaps have been for the convenience of a contiguity

to the mines worked in remote times, unless it arose from a fondness for low damp spots, in survival of the lake-dwelling stage through which they had passed. Lake dwellings are common in Ireland and are known to have been in use up to a comparatively recent period, but they are wanting in Cornwall, perhaps for the excellent reason that lakes also are wanting, or are at least too small to be thus utilized; there is, however, a tradition of Gwavas Lake, which formerly occupied a portion of what is now Mount's Bay, and on that spot are found traces of a supposed submerged forest. From the frequent discovery of hazel nuts there, this may possibly be found to have been a lake settlement.

In treating of the monuments of a country it is advisable not to ignore local legends, since in the midst of much that is wild and improbable there is generally to be found a grain of truth. Much has been written upon the supposed presence of Jews in Cornwall, and the legend is generally disbelieved; but if we substitute for Jew, a foreigner of Eastern, non-Aryan origin, we shall probably find evidence of the truth of the story. In the old men's workings and Jews' houses, as they are called, have been found many objects of undoubted Eastern origin, among which may be especially noticed a bronze bull found at St. Just, similar to one discovered in Babylon, and almost identical with several Egyptian bronzes of larger size in the Louvre. This bull is figured in Mr. Borlase's "*Nænia Cornubiæ*," and there can, I think, be no question of its Egyptian or Phœnician origin. Considering the intercourse which undoubtedly existed in very early times between the Phœnicians and the Cornish peninsula, the relics found are not so numerous as might have been expected; much, doubtless, has been destroyed, and much remains to be discovered. The richness of Cornwall in pre-historic remains is well known, but great numbers have perished even recently. Mr. Millett, of Bosavern, pointed out to me a field where a few years ago the farmer destroyed a large piece of pavement, which he believed had served as a place of cremation, many urns having been found in an adjoining road and which had been likewise destroyed. I am not aware that any Phœnician inscriptions have been met with in Cornwall, although there appears to me a semblance of letters upon one of the urns figured by Mr. Borlase, and a block of tin in the Penzance Museum, found in a "Jew's house," bears letters, but from the supposed cross upon it, it has been referred to Christian times.

Irish traditions are far more copious than those of Cornwall, and give to Irish history a very respectable antiquity. Legendary lore traces the origin of the Irish people first to a Greek or Scythic colony under Partholane, who conquered the aborigines,

but died, with all his followers, of pestilence. To him, after thirty years, succeeded Nemedius with another colony and yet another, denominated Firlbolgs, identified with the Belgæ. Then comes Heremon with some Milesians, who defeats the Damnonians, and gives Connaught to the Belgæ, for their assistance. "In a short time after this settlement," says Warner, "as it is related in the psalter of Cashel, the Picts of Thrace landed with some forces on the eastern coast of Ireland." These Picts, who are reported as having first passed through France, and built the city of Pictavium, were called upon to repel an invasion of the Britons, which they did, but upon seizing Leinster were driven out by Heremon, and settled in the Hebrides and north of Scotland, whilst six of their Druids, for services rendered, were granted estates in Ireland. In addition to these Eastern or Scythic tribes we get the Fomorians, said to be African pirates, and the Tuatha de Dannans, reputed Scythians like the Belgæ, but more advanced in civilization and particularly skilled in the arts of divination; and between the two latter tribes was fought the famous battle of Moytura. That these varied nationalities, if their inroads could be accepted as historical, would be sufficient to account for the various pre-historic monuments of Ireland, there can be no doubt, and the earlier historians evidently considered that a certain amount of truth might be found in the legends. Keating gives a map marking the lines of migration from the neighbourhood of the Euxine, one by way of the Mediterranean and one through the European Continent. That these migrations are not wholly hypothetical I think is attested not only by the megalithic and architectural monuments, but by the various ornaments from time to time discovered. Few can enter the Gold Room at the Royal Irish Academy without being forcibly reminded of Dr. Schliemann's discoveries at Hissarlik and Mycenæ, while the Irish brooch is nearly related to those found in Algeria and other parts of North Africa. The Cells and Round Towers carry one's thoughts to Etruria and Sardinia and the East, whilst singularly enough the markings at New Grange, Lough Crewe, and, if I mistake not, those in the north of Scotland also, have their nearest affinities, not with Egypt and Phœnicia direct, but with the alphabets of these countries as modified in Cyprus according to the discoveries of General de Cesnola. I cannot pretend to do more than advance a theory, but it seems to me that assuming a grain of truth to be contained in the legend which brings the Picts from Thrace, that it is to these people we must ascribe the sculptured rocks in various parts of France, Ireland, and Scotland, representing as I believe the tribal tattoo or pictorial marks for which this race was famous. It would of course be a clear gain to ethno-

logy to trace any one of the numerous classes of pre-historic remains to their source, but before that can be done they require to be arranged and classified more exactly, and the countries wherein they are supposed to have originated must be more thoroughly and scientifically explored.

DISCUSSION.

Mr. HYDE CLARKE, in proposing a vote of thanks to Miss Buckland, said she had usefully enforced a valuable principle in archæology, that tombs represent the dwellings of the living. Burial under the hearth gave the example for several of the other forms. He could not but repeat that in examining our own archæology the early history of other European countries was lost sight of, and we attempted to explain races and monuments by too few migrations. We placed undue weight on certain theories. The Phœnicians were made all-sufficient when the Etruscans as a maritime power were more likely to have preceded them, if, indeed, Phœnicians ever came here. The Aryan occupation had received too little attention and the supposed Basque (Iberian) too much."

Mr. LEWIS said that he thought holed stones were generally connected with the idea of the new birth, which seemed to be the view of the French author quoted by Miss Buckland. At "King Orry's Grave," in the Isle of Man, two stones, shaped so as to make a circular opening, formed a division between two chambers, and he believed a similar instance occurred in Sweden. He understood Miss Buckland to draw a racial distinction between those who built circular fortifications of stone and those who built circular fortifications of earth, but he thought the building material depended on the nature of the country, and just round Chun Castle there was nothing but stone. At "Grimspound," on Dartmoor, there was a stone wall enclosing some hut circles, which was not on a hill but in a valley between two tors. He thought it quite as likely that the Cornish christianised the Irish as that the Irish converted the Cornishmen—in the former case Miss Buckland's difficulty about the Round Towers would be solved. He did not think that the fact of stones having been engraved before being placed in position, showed necessarily that they had been used for other purposes previously. The fact stated by Miss Buckland that rude stone monuments in Sweden were principally found on the west coast, seemed to show that their builders came from the west and not from the east. The Orientation of rude stone monuments was beyond doubt a most important point: he had found in the circles he had seen a reference of some kind to the north-east, which in various papers he had endeavoured to connect with sun-worship, and he believed that to have been the primary object of the circles, although burials were made in them as in our own churches, we having probably derived the custom of burying in churches from our ancestors of the rude stone monument period, the custom being

at least not to be traced to any other source. The sepulchral dolmens and chambers on the other hand had, according to his experience, their entrances somewhere between east and south as a rule, their length running consequently towards the north-west. The "Spinster Stone" had been restored, and there were formerly remains in connection with it which no longer existed, so that it was not safe to found any argument upon it. He did not think that Kit's Coty House had formed part of any chamber or had materially differed from its present condition.

Colonel GODWIN AUSTEN remarked that such monuments as those referred to in the paper were fast disappearing, even in the East, so that any one who would take the trouble to record accurately their size and position, and make plans and drawings of them, was carrying on most excellent work, and this Miss Buckland had been doing. In the Khasi Hills, where similar monuments cover the whole country, numbers had been wantonly destroyed by the soldiery and alien natives or used for buildings. Miss Buckland had noted the fact that dolmens and cairns were generally found in separate areas, not mixed. Such was the case in the Khasi Hills: cairns were common on the northern side of the plateau but none were to be seen on the south some 40 miles off.

Miss BUCKLAND, in reply to Mr. Lewis, observed that although not well acquainted with fortifications there appeared to her to be a decided difference between the Cornish Cliff Castles and the Irish raths, as the former invariably encircle the hill-tops, are constructed of loose uncemented stones in two or more circles, and contain in the centre traces of enclosures, probably for cattle, and for the dwellings of the soldiery or tribe, but no underground caves; whereas Irish raths are frequently found in low situations, consist of earthworks only, and almost always contain underground caverns and passages, either for granaries or places of security.

A communication was laid before the Institute by C. PROUNDES, Esq., entitled "Some Facts about Japan and its People." The Author's observations were illustrated by an interesting collection of plans and drawings.

JUNE 24TH, 1879.

JOHN EVANS, Esq., D.C.L., F.R.S., *Vice-President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The Election of the following new Members was reported:—
F. DUCANE GODWIN, Esq., F.R.S., F.Z.S., Chandos Street; and
PERCY C. WHEELER, Esq., of the Bengal Civil Service.

The following presents were announced, and thanks were ordered to be returned to the respective donors:—

FOR THE LIBRARY.

- From the SOCIETY.—Proceedings of the Asiatic Society of Bengal. Nos. 9 and 10, 1878, and No. 1, 1879.
- From the AUTHOR.—*Armi ed utensili in pietra della troade*. By Dr. G. Nicolucci.
- From the AUTHOR.—*The Serjeants and their Inns*. By E. W. Brabrook, F.S.A.
- From the ASSOCIATION.—Report of the British Association for 1878.
- From the SOCIETY.—*Jahrbuch der K. K. Geologischen Reichsanstalt*. Vol. XXVIII, No. 4.
- From the SOCIETY.—*Verhandlungen der K. K. Geologischen Reichsanstalt*. Nos. 14 to 18.
- From the SOCIETY.—*Mittheilungen der Anthropologischen Gesellschaft in Wien*. Band VIII, Nos. 10–12.
- From the INSTITUTE.—*Proceedings of the Canadian Institute*. Vol. I, Part 1, New Series.
- From the ACADEMY.—*Atti della R. Accademia dei Lincei*. Vol. II, No. 5.
- From the EDITOR.—*Revue Scientifique*, Nos. 50 and 51.
- From the EDITOR.—*Revue Internationale des Sciences*, No. 6, 1879.
- From the SOCIETY.—*Bulletin de la Société d'Anthropologie de Paris*. Vol. II (3rd series) 1879.
- From the MUSEUM.—*Report of the Peabody Museum*. Vols. I and II.
- From the EDITOR.—*Matériaux pour l'histoire de l'homme*. Vol. X, Nos. 2 and 3.

Professor W. H. FLOWER, F.R.S., read a paper “On the Osteology and Affinities of the Natives of the Andaman Islands.”*

The following papers were also read:—“Palæolithic Implements from the Valley of the Brent.” By WORTHINGTON G. SMITH, Esq. “Portstewart, and other Flint Factories in the North of Ireland.” By W. J. KNOWLES, Esq.

GAELIC MYTHOLOGY. By HECTOR MACLEAN, Esq.

IN Gaelic mythical tales and ballads, the most of the names of the heroes and heroines, as in the case of names of the same kind in the myths of other Aryan peoples, are such as may be traced to roots denoting the elements and powers of nature, namely: fire, light, sun, moon, stars, day, night, darkness, cloud, thunder, lightning, earth, sky and wind. The most conspicuous of those stories and poems are such as recount the exploits, fights, victories, and adventures of a race of giants called the *Feinn* or *Fianna*, inhabiting Ireland and the Scottish Islands at a remote period. The ruling tribes among the Irish and Scottish

* See pp. 108–136.

Islanders of olden times claimed descent from those supernatural heroes, as the Greeks and Romans did theirs from their own fabulous gods and demi-gods. The Campbells are called in Gaelic *Duibhnich* and *Slìochd Dhiarmaid O Duibhne*, "the descendants of *Diarmaid O Duibhne*," who is assigned to them as ancestor by the traditions of the Gaels. Diarmaid was the nephew of Fionn MacCumhaill, the lord or king of the Fianna, and was wounded in the sole of his foot by one of the venomous bristles of a boar, which he hunted and killed, as he measured his length from the tail to the snout, in accordance with his uncle Fionn's strict injunction, who wished to compass his death in revenge for Diarmaid's elopement with Graine, Fionn's betrothed wife. Diarmaid died of the wound; and, although according to the ballad that relates Diarmaid's death, it was in his uncle's power to heal him, and he had promised to do it, yet, although repeatedly entreated by Diarmaid, who enumerated the numerous services he had performed for Fionn, the latter declined. Highland traditional story tells us that it is in commemoration of the killing of the venomous boar by Diarmaid that the chief of the Campbells, the Duke of Argyll, has a boar's head for his crest. The first Gaelic book printed, a translation of "John Knox's Liturgy," by Mr. John Carswell, Bishop of the Isles, published in Edinburgh in the year 1567, is dedicated to the Earl of Argyll, whom the translator addresses "do ghiollaeasbuig uanduibhne Iarla Earra gaoidheal, agas tighearna Ladharna," to *Archibald O Duibhne, Earl of Argyll and Lord of Lorne*. This fact illustrates well how much traditional national myths were interwoven with the political and social institutions of the Scottish Gaels.

The belief in the animation of inorganic nature still lingers in several parts of the Highlands, as well as the belief in fairies, ghosts, metamorphoses, and sorcery. Every hill, knoll, valley, dell, wood, river, lake, brook, well, bay, or rock seems to have had its spirit; and sea, sky, winds, and clouds were imagined to be endued with a certain amount of consciousness, at a period not very remote from our own day in this part of Great Britain. In Campbell's "Popular Tales of the West Highlands," vol. ii, p. 37, we find a short story that recounts how one of four men in the Island of Barra, who were watching cattle, struck a dog that they saw, although cautioned by his companions, and immediately lost the power of his hand and arm. He consulted an old woman who had some knowledge of those matters, and she told him that there was no remedy to be had for a year and a day; but, at the end of that time to go to the knoll, where he struck the dog, and say to it "If thou dost not let with me the strength of my hand, I or my race will leave neither stick nor

stone of thee that we will not drive to pieces." At the end of the stated time he did as the old woman directed him to do and so recovered the power of his hand and arm. This story is followed by another, which tells how a woman went to a knoll for shelter and began to fix in it the tether-peg of the tether of two calves of hers, when the knoll opened and a woman put out her head and all above the middle, and rebuked her for what she was doing. The owner of the calves apologised and pleaded weakness and poverty as an excuse. The inhabitant of the knoll directed her where to feed her calves and told her that if she acted as she was bidden she should not be a day without a cow as long as she lived. She took the advice of the woman of the knoll, and was never thereafter without a milk cow. These and many other such stories were related in Barra, Uist, and several other districts in the Highlands, in the year 1859 and subsequently by men and women who believed in them, who could neither read nor write, and could speak no other language than Gaelic.

Many phrases still live in Gaelic in which the seasons, the weather, and the various powers of nature are spoken of as living persons. The cold weather of winter is spoken of as a hag or old woman, who prevents the grass from springing up by beating it down with a large mallet. This mallet she throws away on the 1st of February, St. Bridget's day. After the 15th of February come the "three days of the beaked female;" these are followed by the "three days of the whistling female;" the three days of the lame, white work-horse succeed these; lastly, the "three days of the sweeping female. Up with the spring!" The "carrying south of the year" is mentioned in a Gaelic poem: the last fortnight of summer and the first of autumn are named "The Keys;" the former locks summer and the latter unlocks autumn. Gaelic myths, evidently then, like other Aryan myths, were evolved from animism and metaphorical expressions to a considerable extent, as the preceding instances, quoted from a multitude, would seem to show clearly: personifications of physical powers, and a belief in their being animated.

Mr. G. W. Cox in his "Aryan Mythology," has compared several of the stories in Mr. J. F. Campbell's "West Highland Tales," with Hindoo, Greek, Latin, and Teutonic myths; and has identified two of their heroes, Diarmaid and Conall Gulban with the sun; two of their heroines, the daughter of the king of the kingdom under the "Waves" and "Breast of Light" with the dawn; and a third of their heroes, the one-eyed Smith, Lon MacLiobhann, with the thunder-cloud. In this collection of Highland stories are to be found tales and ballads that recount

the adventures of some of the other heroes of the Feinn, such as Fionn, Osgar, Goll, Oisean, and Caoilte. A collection of poems relating the battles, quarrels, and hunts of these giants was made by Dean McGregor, of Lismore in Scotland, in the year 1512. This collection was translated into English by the Rev. Dr. Thomas McLauchlan, of Edinburgh, and was published with the translation in Edinburgh in 1862. Several other collections of such poems were made at successive periods subsequent to the time of the Dean, the most of which, along with a collection of his own, made orally in the Highlands were published in London in 1872 by Mr. J. F. Campbell, editor and translator of the West Highland tales already referred to. This work is entitled "*Leabhar na Feinne*" or "*Heroic Gaelic Ballads*." Mr. Campbell meant to follow this volume by one of translations, which has not yet, however, appeared. Stories and ballads of which the Feinn are the subject, are found in Irish writings as early as the eleventh century. Irish chroniclers have converted this mythical people into a militia raised to defend Ireland against foreign invasion. The births, deaths, and exploits of those fabulous heroes are narrated with as much precision in regard to day and date as the reign of Brian Boroinhe, and the battle of Clontarf. Tradition and writing hand down to us two sets of parallel stories of a kindred nature respecting them. The traditional tales and ballads which have not been modified by the historians of the Middle Ages are, as might be expected, more mythical and less historical in character. The ballads are but prose narratives abridged and versified.

The geography of the stories of the Feinn is remarkably limited in the more primitive of them. The regions mentioned in such are usually four: *Eirinn*, *Tir-Shoir*, *Sorchir* or *Sorcha*, and *Lochlán*. These names are transparent and explain themselves. *Eirinn*, the oldest form of which is *Eriu*, denotes the land of the west, Ireland, and is named in one of the ballads in the Dean of Lismore's book, "*fodleith earra in doythín*," "*the western land of the world*." *Fodla*, which means "*land or country*," from *fól* "*soil*," is a name for Ireland. *Sorcha* signifies "*light*," and is traceable to the same root as that from which the Latin *Sol* and the Sanskrit *Sūrya*, the sun, come. *Sorchir* found in the Dean of Lismore's book when translated into the orthography of Irish and modern Scotch Gaelic, is *Sorcha-thír*, "*land of light*." When *Sorcha* had become obsolete as a name for "*light*," *thír* "*land*," pronounced nearly *heer*, was dropped from *Sorcha-thír*, and hence we find *Sorcha* substituted for it in the greater number of the ballads and tales. This name would appear to have denoted, in ancient times among the Gaels, all the countries to the south-east, south, and south-

west of their own country, and to have become restricted in meaning in proportion to the increase of geographical knowledge among this people, until ultimately it became a name for Portugal, and it has now ceased to be a name for any country. It was originally, in fact, the land which corresponded to the daily apparent course of the sun, southward, from east to west. *Tir-shoir* signifies "east land," and was used in contrast with *Eirinn*, "west land;" another form of the name is *Airthir*. *Oir* and *soir* both mean "east." The name of Argyll, in Gaelic *Earra-Ghaidheal*, denotes "east land of the Gaels." This name is a corruption of *Oirthir Ghaidheal*, and the part of the highlands so called included at one time the present counties of Argyll, Inverness, and Ross. It was so named in contrast to the Hebrides, which in ancient times were considered by the inhabitants part of Eirinn or west land; and hence Ptolemy describes them as part of Ireland. The *Eirinn* of the myths of the Feinn would appear evidently to have comprehended the West Highlands; and in a letter to Henry VIII of England from a Highlander, the latter tells the English King that the Highlands were called *Eirinn bheag*, "Little Ireland."

Lochlan denotes now Norway and Denmark; but in olden times it was a name for the whole of Scandinavia and Germany. As *Sorcha* or *Sorcha-thir* was an old Gaelic name for the land of the south, so *Lochlan* was the corresponding name for the land of the north. It comes from *loch* "black," and *lan* or *lunn*, "enclosure, land, house," and so signifies "dark land," the land that the sun was supposed by the old Gaels never to visit,—the land of frost, snow, cold, and darkness.

In Campbell's "Heroic Gaelic Ballads," there are eight variants of the ballad "*Dyr borb*" (Fierce Dyr) in the Dean of Lismore's book. In four of these we find *Iarsmaile* (Jerusalem), *Hespainte* (Spain), *Eispainte* (Spain), and *Greiga* (Greece), replacing the *Sorchir* of the Dean's Book and the *Sorcha* of the other variants. As regards *Lochlan*, variants of ballads and tales point to its gradual subdivision into several countries. A ballad that recounts a battle fought between the Feinn and the whole world in arms, in which the former were victorious, mentions *Daor Done* (Brown Daor) as King of *Lochlan* in one verse, and as king of the world in another. Of all the countries of the world, only *Lochlan*, France, Greece, and parts of Ireland are named. Fairstrand, the place where the battle is said to have been fought, might have been one of numerous places on the shores of Ireland and Scotland, but was more probably a place in Cloudland. Ossin, the mythical bard, the son of Fyn MacCoul, sings the ballad to St. Patrick, but assigns no date to an event of such importance to his father and people. The Irish have localised

the place at Ventry Harbour; and Ventry means Fairstrand, while the inhabitants of the island of Islay, in Scotland, tell us that it is a strand so called on the north-west of their own island. In his "Heroic Gaelic Ballads," vol. i., p. 137. Mr. Campbell, referring to Mr. John Hawkins Simpson's translation of an Irish variant of this ballad and of a tale treating of the same subject, remarks of the tale: "Then follows a good English version of an exceedingly wild, extravagant prose story, which has the marks of old manuscript tales. All the kings known to the composer of the story, including the kings of India and France and the Emperor of the World, invade Ireland. Fionn beats them in Homeric single combats." *Rígh Teurmann*, "King of Germany," is found among the allies of the King of Lochlan, in another ballad. In an Irish story, which relates how a Norwegian king came to the island of Rathlin with a large fleet to carry off a beautiful lady for wife by force, but was defeated and slain, Norway is called Huardha. These instances show how a name that, in ancient times, denoted the whole known and unknown northern world, has now become the Gaelic equivalent for Denmark; and *Tír-Shoir*, Eastland, recedes from Ireland to India in the ballad of the Battle of Gabhra, in which "Óskir," Ossin's son, was killed.

The battles between the Feinn and the Lochlaners cannot be identified with any battles fought between the Scandinavians and the Irish and Scotch Gaels. Very few of the names of the Lochlan heroes, mentioned in traditional story as having warred with the Feinn, are Scandinavian; they are mostly all Gaelic, such as *Gorm-Shuil*, "Blue-eye," *Ceothach*, "Misty," *Lamhnám-beud*, "Hand of the Hurts," and *Lamhfhad*, "Long hand." The names of the Scandinavians of History, who invaded the Highlands and Ireland in the eighth century, became Highland and Irish personal names and surnames, all of which bespeak their Norse lineage: such as Torcall (Torquil), Tormaid (Thormond), Ionhar (Ivor), Raghnall (Raginhild). Tormaid, Ionhar, and Somhairle are Anglicised Norman, Edward and Samuel, and Raonailt (Raginhilda), a woman's name, is Anglicised Rachel. The *Lochlannaich* of history, the Scandinavians, are known by two other names: *Gentil*, "Gentiles," and *Gaill*, "strangers." The Norwegians are called *Fionn-Ghaill*, "White strangers" and the Danes, *Dubh-Ghaill*, "Black strangers"—figurative expressions which signify the nearer or more known, and the more remote or less known foreigners. These historical Lochlaners or Norsemen not only introduced personal names and surnames among Highland and Irish tribes, but also local names into Irish and Highland territory,

which, at this day, notwithstanding the change they have undergone, leave no doubt as regards their Norse origin; while hardly any of the topographical names that occur in the Feinn stories are Norse, excepting, perhaps, Beirbhe and Spaoili, which are very probably Gaelicised forms of Bergen and Upsala. No old Gaelic song or ballad commemorates the exploits of Robert Bruce, although a large Highland force was present at the battle of Bannockburn. In one old Gaelic song alone does the name of William Wallace, the Scottish hero, occur. In this song the author compares the Earl of Argyll with *Uilleam Walas*; and the form in which the name is found, shows that it was not naturalised among the Gaels. Yet Sir Neil Campbell of Loch Awe, and several other Highland chiefs, with their clansmen, supported Wallace in the war of Scottish independence. It seems therefore that myths are transmitted through very long periods of time by tradition, and that historical facts vanish from oral narratives in a few generations. The tales and ballads found in the Highlands, which recount the feats of the Feinn, are as unhistorical, with respect to facts, as it is possible for any fiction to be. As already stated, the heroes and heroines are evidently personifications of the powers and phenomena of nature, and like the mythical tales of other nations, delineate the alternations of day and night, the succession of seasons, storm and calm, cloud and sunshine, heat and cold, growth and decay.

The two principal tribes of the Feinn were the children of Morna and the children of Baoisgne; Fionn MacCumhaill was the chief of the latter, and Goll MacMorna of the former. They have quarrels and feuds amongst them; but they invariably combine to fight against the men of Lochlan or Darkland. Fionn MacCumhaill, besides being chief of the children of Baoisgne, was lord of all the Feinn, and Goll MacMorna was subordinate to him. Their country was Firinn, Westland, which was also called *Tir-Fail*, a name seemingly meaning "Land of Light." M. Windisch traces the Gaelic *Solus* "light," and *folus* "clear, manifest," to the root *scar*, "to shine," and from the same root, doubtless, comes *Fal* (nominative of fail). *Innis Fail*, "Isle of Light," corresponds to modern Ireland in Feinn story and Firinn to Ireland and the Hebrides. Fionn is frequently called in these traditions *Floith Fail*, "Lord of Light," and all the heroes are sometimes spoken of as *Uaislean Fail*, "Nobles of Light," and at other times *Fluithean Fail*, "Lords of Light." In the ballad of Caoilte and the Giant, the expression *Mhic Rìgh Phail*, son of King of Fal, occurs, and in one variant of it the same expression is replaced by *Mhic Rìgh Soluis*, "Son of King of Light;" in another verse of this

variant is to be found *Mhic Rìgh Fail*, "Son of King of Fal." So it would appear that Fal and Solus were in olden times synonymous. (Campbell's "Heroic Gaelic Ballads," vol. i, pp. 54, 56, 57.)

In a Scottish Lowland poem, the "Interlude of the Droichs," we have an account of Goll MacMorna's birth, which appears to have been analogous to that of Dionysus and of Athênê:—

"My fader meikle Gow-mac-morne,
Out of his moder's wame was schorne,
For littleness was so forlorne
Sican kemp to beir."

Highland story, so far as we know at present, says nothing of Goll's birth; but this account of it must have been, in former times, current among the Gaels of the north-west of Scotland. Goll's other Highland name is *Iolann*, which denotes "Light giver," and is derived from *iol*, "light." In Irish writings his other name, besides Goll, is *Aéd*, a name which signifies "fire." The name *Goll*, which means "blind," he received, according to Highland story, after having lost an eye in a fray in Lochlan; but, according to Irish chronicles, was deprived of it by one *Luchet*, whom he killed thereafter at the battle of Cnucha, fought between Conn of the hundred fights and Cumbhall, the father of Fionn. His father, Morna, had also another name, *Dàiri donn*, according to Irish accounts, and a Highland ballad speaks of his grandfather Neamhan, the father of Morna. The name *Dairi*, the modern form of which is *Daoire*, the Dyr and Dyryth of the Dean of Lismore's Book, is, like the classical names Zeus, Dianus, Juno, and the Teutonic names Tyr, Tiu, Tuisco, traceable to the root *dju*, "to shine," from which come several other names met with in the Feinn ballads and tales, e.g., *Diarmaid*, *Dearg*, *Diurag*, *Deirdre*; also the Gaelic words *dears*, "to shine," *dealan*, "lightning," *dealradh*, "effulgence," *deachair*, "bright," *dearg*, "scarlet," and *Teirt*, "morning or dawn." A brother of Goll is named *Daoire*, another, *Flann*, "Red," and a third, *Garaidh*, "Heater," from *gar*, "to warm or heat." Of the same origin with *Garaidh* is *Graine*, the name of a lady who was betrothed to Fionn and eloped with his nephew *Diarmaid*. *Grian*, a feminine name like *Graine*, is from the same root, and is the only living name in Gaelic for the sun.

Goll and his tribe, the children of Morna, would seem to be personifications of sea-side phenomena, the sun setting in the sea and rising out of it; the glowing western sky of evening twilight and eastern sky of dawn, reflected from the waves, become luminous with borrowed light, and tintured with variegated, brilliant hues. Near the sea Goll performed the most of

his feats ; at Eas Ruadh, close to it, he fought and killed Dyr Borb—fierce Dyr ; wading in it he fought and killed Kerrel or Caoireall, a son of Fionn ; and on a rock in the sea he was killed himself by Mugan MacSmail. In Ireland the children of Morna are localised in Connaught, and some Highland stories locate them in the Highlands. In the name Morna we have the Keltic base *Mor*, denoting “sea,” from which is derived the Gaelic *muir* and the Welsh and Breton *môr*, “sea.” Morna is, therefore, the “sea being” or “person.” *Dairi dere*, his other name, signifies “Bright-red Shiner,” and would appear to have been an old metaphorical name for the rising sun darting its rays through the red-tinted clouds of dawn. *Neamhan*, the name of Morna’s father, also signifies “Shiner” or “dweller in brightness.”

The children of Baoisgne whose chief was Fionn MacCumhaill, mostly personify physical powers and appearances in districts where the sea is out of sight ; inland sunrise and sunset ; inland dawn and gloaming. The exploits of Fionn, Diarmaid, Caoilte, and Osgar are not much associated with the sea ; nor the deaths of Diarmaid, Osgar, and Fionn. Baoisgne, the name of the progenitor of the Baoisgne tribe, might be derived from *baoisgy* or *boisgy*, “to shine ;” but in the pedigree of Fionn compiled by the Vicar of Bienn Eadair (“Heroic Gaelic Ballads,” vol. i., p. 34), the form of the name is Baiscne ; and *baiscne* is an obsolete Gaelic or Irish name for “tree.” *Basc* is an obsolete Gaelic word, meaning “scarlet.” The name may, therefore, signify “Shiner, Red-being, or Tree.” *Inis na fiodh-bhuille*, “Isle of Wood,” is an ancient name for Ireland ; and it implies that this island was in olden times covered with forests. In those ancient times, consequently, the sun, moon, and stars would be seen rising and setting in the woods, in the interior of the country ; while the red, purple, and yellow clouds of early morning and late evening would appear in the distance as branches of varied and fantastic shapes, covered with gorgeous foliage. Traditional story informs us that Fionn’s nurse, having run away with him when a child to save him from those who aimed at his destruction, had the trunk of a tree hollowed out to serve as a hiding-place for herself and the child ; and to this excavated retreat the bark of the tree was adjusted for a door. Here he was fed on fat, instead of milk from the breast, until he was able to walk and go about. Bathing in a lake one day, he encountered a number of young princes whom he plunged under the water and drowned. In consequence of killing these princes, he found it necessary to take to flight and find out some other retreat farther off from his enemies. He set off accordingly, carrying his nurse on his back through the

forest. When he got through it nothing remained of the old woman, his nurse, but the two legs. He threw them into a lake close by him, where they became two large monsters. Here, as he looked around him, he observed a man fishing on a river. He walked up to him and asked him if he was getting any fish. He said, No; that he had been fishing for years for the king, and that he had not yet caught a trout for him. Fionn asked him to fish in his name. This the man did, and he killed a trout for the king, one for the queen, one for the king's son, one for the king's daughter, and one for Fionn. The directions that he received from the fisherman *Arcan Dubh*, "Black Bung," with respect to cooking the trout are best told in Mr. J. F. Campbell's translation of this story. (Campbell's "West Highland Tales," vol. iii., pp. 335, 336.)

"Thou must, said Arcan, broil the trout on the farther side of the river, and the fire on this side of it, before thou gettest a bit of it to eat; and thou shalt not have leave to set a stick that is in the wood to broil it. He did not know here what he should do. The thing that he fell in with was a mound of sawdust, and he set it on fire beyond the river. A wave of the flame came over, and it burned a spot on the trout, the thing that was on the crook. Then he put his finger on the black spot that came on the trout, and it burnt him, and then he put it into his mouth. Then he got knowledge that it was this Black Arcan who had slain his father, and unless he should slay Black Arcan in his sleep, that Black Arcan should slay him when he should awake. The thing that happened was that he killed the caile, and then he got a glaive and a hound, and the name of the hound was Bran MacBuidheig."

Fionn means "white, fair, clear." As a substantive it is now restricted in meaning to "cataract on the eye;" but it anciently signified "a fair person," a fair-haired person, or anything white or clear. As a verb, it formerly meant "to see, to look, to perceive;" and metaphorically it denoted "sure, sincere, pleasant." From these several meanings it is sufficiently evident how it might be a name for the pure clear sky, and for the bright day of unobscured sunshine, and also for an imaginary hero, noted for his wisdom, knowledge, and justice, who was king of a race of mythical, redoubted warriors. Fionn MacCumhail, the "Lord of the Feinn," the "Lord of Light," is surnamed *fiainle*, "fair day," in a variant of the "Lay of the Distressed Maiden" (*Heroic Gaelic Ballads*, vol. i., p. 128), and in a variant of the "Poem of Diurag," at page 219, the epithet, *fiorghlic* "truly wise," is applied to him. He is mentioned in the "Interlude of the Droich's," the Scottish poem already quoted, as having power over the sky; and from this

poem, as well as from several others, it would seem that the Highland and Irish Feinn myths were current at the time those poems were composed in the Lowlands of Scotland. Here is the stanza that makes honourable mention of our Goidelic hero :—

“ My fore Grand-sire heicht Fynn-Mac-Koull,
Quha dang the Deil and gart him zoul,
The skies rained fludes quhen he wad skoul,
He trublit all the air.”

The Deil in this passage is obviously the one-eyed Lochlan Smith, whom the Feinn compelled to forge arms for them. This smith was seven-handed, and was assisted by *Daorghlas*, one of the Feinn, in making the swords. The name *Daorghlas* signifies “Shining Grey;” but he received the name *Cuolte*, “Slender,” from the smith, and by this name he was thenceforth called. When the swords were finished, the smith told them that they should not be perfect unless they were tempered in human blood. They cast lots with respect to the person in whose blood the weapons were to be tempered, and the lot pointed out “Fionn, King of the Children of Baoisgne,” for a victim. Fionn walked out of the smithy, observed a bye-way, and went along it, until he came to a house, which he entered, where he found the smith’s mother, whom he told that her son wished to see her. “It is seven years,” she said, “since I have seen my son;” and she went with Fionn to the smithy. When she entered the smith plunged the swords through her body, not perceiving at first that it was his mother. Fionn received his sword from the smith, after it was tempered in the old woman’s blood, and then thrust it in the smith and killed him, so that he had the sword fully tempered to his wish. (“Heroic Gaelic Ballads,” vol. i., pp. 66, 67.) Mr. Cox, in his “Aryan Mythology,” quoting from the ballad of the One-eyed Smith in the “West Highland Tales,” calls the smith “the genuine Kulklops.” Of the smith’s appearance and accoutrement Mr. Cox remarks :—“All this explains itself. The hammering tools and steel lathe are the thunder and lightning; and the thunder-cloud strides across whole valleys at each step, and clings to the high grounds and the mountain sides.” (“Aryan Mythology,” vol. i., pp. 356, 357.) The following is the passage in the ballad of the One-eyed Smith, in the “West Highland Tales,” to which Mr. Cox alludes in the above :—

“ There was seen nearing us
A big man upon one foot,
With his black, dusky black-skin mantle,
With his hammering and his steel lathe.

“One shaggy eye in his forehead ;
 He set off like the wind of the spring-time
 Out to the dark mountains of the high grounds.
 He would take but a single leap
 O'er each single cold glen of the desert.”

Caoilte, whose first name was *Duorghlas*, “Shining Grey,” was Fionn’s foster-son and his nephew by the mother’s side. He is the impersonation of lightning ; of the sun’s rays when the sky is overcast with dark clouds and the sun concealed from sight ; of starlight and moonlight in cloudy nights ; in short, of the rays of all luminaries of the sky considered apart from the luminaries themselves. He was the swiftest of the Feinn heroes, and, when at full speed, appeared to have three heads. How transparent his mythical character is, appears from a poem in the Dean of Lismore’s book (English translation, pp. 62–71), which recounts how he obtained the release of his foster-father and uncle Fionn, who was a prisoner of King Cormac. The feats that he performed previous to his obtaining the release of Fionn from Cormac fully identify him with the lightning :—

“The calves I slew with the cows,
 Which I found in all fair Erin.

“The fields all ripe throughout the land,
 I set them a blazing brightly ;
 Then indeed I had my triumph,
 For I made a total havoc.

“Then it was they loosed against me
 The horse of Albin and of Erin.
 My fleetness gave me victory,
 Until I reached Ros illirglass.
 Then I westward took my way
 To Taura, although great the distance ;
 Not one horse of all the troop
 Had Taura reached so soon as I did.”

When he arrived at Cormac’s palace he obtained the door-keeper’s clothes and held the candle for Cormac. In this disguise, nevertheless, Cormac recognised him. Wishing to procure his foster-father’s freedom, he asked Cormac on what conditions he would set him free. Cormac told him that it should be done only on one condition, which was to procure for him a pair of every species of wild animal. This, Caoilte, difficult as it might seem to ordinary people, managed to do ! One would think that he would require to be a fast flier, as well as a fast runner, to catch the birds ! They were now put into a stronghold, the doors of which were thereafter shut :—

“There was a little ray of light
Reached them in through fifty openings.”

Here Caoilte had to watch them until morning, which he did, and allowed none of them to escape. Caoilte, who relates his own story, tells what ultimately happened :—

“To see them standing side by side,
Was all the profit got by Cormag.
For when Finn did get his freedom,
All of them did scatter widely.”

Here we have actually a thunder-storm of a destructive character ; a night, at first dark and clearing up before morning ; finally the disappearance of the stars with the coming day, the liberation of Fionn, and the dispersion of the birds—the stars, when the doors of the stronghold—night—were opened.

The trout which Fionn roasts by the flames of a fire kindled on the opposite side of the river on which it was fished is seemingly the sun. In another story, that of the Rowan tree dwelling, an enigma is proposed to Fionn for solution, viz., Swifter than a horse and it was the young offspring that was seen ? Fionn's solution is : *The salmon-trout of the red spots, for he will travel the world in a year, which a horse cannot do.* *Eare* is an obsolete Gaelic name both for “salmon” and for “heaven” ; so Fionn's metaphorical expression, converted into the scientific language of our day, means that the earth revolves round the sun, or apparently the sun round the earth, in a year. The sky is here figuratively called the parent of the sun, which travels the world in a year. Arcan Dubh, who in one story is said to be the slayer of Cumhall, Fionn's father, is the end of night, the darkness that prevents the light of dawn from issuing forth and would kill young day, the son of *Cumhall*, “early night,” whom Black Arcan killed. The name Arcan is of the same origin as the Latin arceo. As already mentioned, the name means “bung or stopper,” so Black Arcan is the enemy both of early night and of early day. He plans the death of Fionn, “day,” at the rising of the sun, but his own death is the result. The name Cumhall is not to be confounded with the obsolete Gaelic word *Cumhal*, “a handmaid.” A single story, of which there are no variants, makes Cumhall the name of Fionn's mother. In all other stories, both Irish and Highland, Cumhall is a man and the father of Fionn. In Welsh we have *Cwmwl*, “cloud,” and in Breton, *Commol*, “cloud, darkness” ; so evidently the primary meaning of Cumhall was, in all likelihood, the same as that of those two words in the two other cognate Keltic languages. All the traditions, as well as Irish chronicles, inform us that “Murni Muncaim,” or Murenn Mong-Chaen, daughter

of Tadhg, the druid, was the mother of Fionn. This name signifies the woman of the fair neck,—dawn. *Tadhg*, or *Tadhig*, denotes "poet or orator," and the father of the dawn is the early breeze that harmonises with the morning songs of the birds.

The most popular account of Cumhall's death, also that which is given in Irish chronicles, is that he was killed by the sons of Morna. Highland story relates that Goll pierced him first with his spear, that the men of his tribe followed Goll's example, and that Cumhall died of the wounds received from them, uttering loud groans. The name of the warrior who destroyed Goll's eye, "*Luchet*," is apparently cognate with the Welsh *lluched*, "flashes of lightning," and the Breton *luhet*, "a flash of lightning." *Iolann*, "the light giver," *Aedh*, "fire," killed *Luchet*, who destroyed his eye, and Cumhall; and was called *Goll* "one-eyed," after having been blinded of an eye, as the sun is blinded by the lightning and the thunder-cloud, but as the thunder-storm comes to an end, the strong solar rays pierce the scattered dark clouds, the sky clears, and the single eye of day, the brilliant sun, shines with unusual splendour.

Goll was the strongest of the Feinn. It was he who fought and overcame the strongest of their enemies. He once released Fionn, whom the enchantment of three evil magicians, Nemh, Agha, and Acuis, fastened to his seat by ice in a Rowan-tree booth. *Nemh* means "poison," *Agha* is derived from *aig*, "ice," and *Acuis* from *ec*, "dark." Goll, the strong sun, the Goidelic counterpart of the Greek Hercules, and the Scandinavian Odin, overcomes the snows, frosts, and long dark nights of winter, and brings on spring and summer. The last feat of Goll was the slaying, in single combat, of a son of Fionn, *Caoiruell*, "Sparkler," starlight mostly extinguished by the long days and twilight of midsummer. In consequence of this act he was driven by Fionn and the tribe of Baoisgne into a rocky islet in the sea. Aine, his wife, converses with him from the opposite shore and tries in vain to persuade him to come to land. *Aine* literally denotes "blaze," and metaphorically "delight." The verdant blooming earth of summer grieves for the death of the north-going sun at the summer solstice. Goll informs his wife of his approaching end and that her future husband is to be *Aedh*, "fire," from Spain, to whom she will bear nine sons and one daughter. The north-going sun is to be succeeded by the south-going sun, the fructifying sun of autumn, whose children are the ripe fruits and corn brought forth and nursed by mother earth.

Goll is slain on the islet by a person whose name was Mugan MacSmal. The name Mugan is derived from *mug* or *much*, "smoke," and *Smal* denotes the black dust that results

from the combustion of fuel, or the snuff of a candle. The death of Goll is the obscuration of the light of the setting sun by the dark clouds that gather over him on the western horizon.

NOTE.—The name *Goll* is not, probably, identical with the homonym *goll*, blind one-eye; it is more likely to be cognate with the Welsh *golen* and the Breton *Goulon*, "light."

THE SPREAD of the SLAVES. Part III.

THE NORTHERN SERBS or SORABIANS and the OBODRITI.

By H. H. HOWORTH, Esq., F.S.A.

Section I.

IN the two previous papers of this series we have dealt with a number of tribes whose homogeneous character is remarkable, and who have more or less a continuous history which can be followed without difficulty. We can trace them from their first home in the country north of the Carpathians until they occupied a large portion of European Turkey, and we can study their descendants there in an unmixed and largely unsophisticated condition. Subjects of the Turks, they have mixed little with them or their other neighbours, and in language and many other characteristics they are very much what their ancestors in the seventh century were.

We have now to consider a more difficult and complicated series of tribes, who migrated in a different direction and who, after being broken to pieces and disintegrated by their German neighbours, have been largely absorbed by them. Over large areas they no longer exist as Slaves. Their language has been altered and changed, and they are to all intents and purposes Germans. This increases largely the difficulty of following their history, which is further complicated by the fact that Slaves belonging to two of the great divisions of the race were possibly settled in their area, and that they have, in our view, been confounded together. This will involve our taking a somewhat minute survey of these tribes.

They are all classed together by Schafarik under the name of Polabian Slaves, a name derived from their living on the Elbe. Po meaning on, while Labe is the Slavic name for the Elbe, a name which is constructed in the same manner as Pomorian,

which similarly means those living on the sea. This is not a bad generic name for them, except for the fact that one of the tribes is known specifically as Polabi, so that we have to use the term both in a generic and specific sense. Schafarik also includes in the name tribes which I believe belonged to two distinct divisions of the Slaves, and which we shall attempt to discriminate. These divisions were the two grand sections of Eastern and Western Slaves. The Serbs and Russians are typical examples of the former, while the Poles and Bohemians are similar examples of the latter. This second class we are not now dealing with, consequently we shall separate those tribes which, in our view, belong to it. I would say *in limine* that the main reason for holding the view here urged is the consistent notice which the Frank annalists give of the alliances and policy of these tribes. While they mention the Wiltzi as the persistent enemies of the Franks, and as the allies of the Saxons, the Obodriti and their associated tribes are found constantly in alliance with the Franks, and at issue with their rivals the Saxons. This is so constant that I cannot doubt that the two tribes belonged to different divisions of the race, a view which is largely confirmed when we find that the Wiltzi are actually mentioned by Ptolemy, and placed by him on the Oder, while the other tribes, their rivals, are not named by him, but their country is made the home of a series of German tribes. When we come to discriminate between the two in detail, the matter becomes very difficult; our best guide, language, is only partially available, for the difference which so easily marks off the dialects of the Eastern and Western Slaves has largely disappeared in consequence of the adoption of German as the mother-tongue of all the tribes. Schafarik, as I have said, classes them all together. Much of what follows is necessarily tentative, and in some cases must always remain so; but it is the best result which seems to me at present available after weighing the evidence. The old indigenous stock of Slaves of the Oder and its neighbourhood belonged to the Western Slavic division, of which the Poles and Bohemians are the chief factors. The intruding Slaves perhaps belonged to the Eastern section, of which the Russians and Serbs are the most typical specimens. It is with the intruders we have at present to deal.

I believe they may be roughly divided into three sections: the Obodriti and Wagrians in Mecklenburgh; the Sorabians or Serbians Proper, living in the district called Sorabia, in Spruner's map, number 31, and including also large colonies west of the Elbe, and a strip of territory along that river, joining them to the Obodriti. These, I believe, were the White Serbians of Constan-

tine Porphyrogenitus; and thirdly, the people of Upper and Lower Lusatia and of Silesia who were, as I believe, the White Croats of the same author (*vide infra*). We will now examine these three divisions in detail beginning with the Obodriti.

When we first meet with the Obodriti in the pages of the Frank annalists, they were, as I have said, closely allied with the Franks, while their enemies and rivals, the Wiltzi, were allies of the Saxons. So much was this recognised, that in the "*Annales Laureshammenses*," under the year 798 we read of "*Scavi nostri qui dicuntur Abotriti*" (Pertz i, 37). This feud between them and their neighbours on either hand, which was probably the reason for their close friendship with the Franks, when read with the fact that they are not named by the classical authors, makes it exceedingly probable that they were an intrusive population into this area; and this again is more than confirmed when we find, as I have shown, that there were Obodriti elsewhere, namely, on the Danube. This last fact shows that the race was broken into fragments. We shall therefore have no difficulty in treating the Northern Obodriti as an immigrant race. This clears the way considerably, and we can the more easily inquire who they were and whence they came. The name occurs in various forms, as Abotriti, Abodriti, Abotridi, Obotitri, Obodriti, Apdrede, Afdrede. Nortabtrezi, etc. (Schafarik ii, 587). Zeuss in one of his notes suggests that the name is compounded of Ob and Oriti or Odriti, and connects them with the River Oder. But this seems to be very unsatisfactory as an etymology, and I very much prefer the authority of the great Slavic ethnologist, Schafarik, who tells us it is clearly a Slavic name, and compares with it Bodrica in the government of Witepsk. Bedrici in the government of Kaluga Biedrzyce, the name of four places in the government of Plotsk. Bedrc, in the Bernese Alps, a town Bidrici in a document of the Emperor Otho in 949, a town of the same name in a document of 965, Bidrizi in 992, Bitrizi in 995, and still known as Biederitz, lastly the name of the castle of Bodrok, and the circle or province of Bodrog (stolice Bodrocka) in Southern Hungary (Schafarik ii, 588). The same author concludes that the name is ultimately derived from the word "bedr" or "bodr." meaning (vigil, strenuus) the German bieder, the termination in Abtrezi Bidrizi, etc., being the patronymic "ici," and Bodr or Bodrog being a man's name, the primæval eponyms of the race, so that Obodriti or Abtrezi simply means the tribe or descendants of Bodr or Bodrog, as the Inglings, Scioldings, etc., mean the clan of Ingve, Sciold, and so on. This is the usual way in which the neighbouring tribes were named, and in receiving the sanction of such a great Slavic scholar as Schafarik, we may safely put aside that of

Zeuss, and discard the connection between the Obodriti and the River Oder, which was far away from their sites when we first discover them. The name Obodriti seems to have been used in two ways, generically and specifically. Generically it seems, as Schafarik, Zeuss, and others are agreed, to have included a number of small neighbouring tribes, who are respectively known as the Wagrians, Polabians, Smolingians or Smeldingians, Linones, Bethenici, and Warnabi. At other times the name Obodriti was a specific one, and limited to a special tribe. This special tribe of Obodriti lay immediately on the Baltic between the Rivers Warnof and Trave. It was bounded on the west by the Wagrians, on the east by the Wiltzi, and on the south by the Polabians.

Its chief towns were Rereg or Reric, from which they were also known as Reregi—Schafarik connects this name with Rarog the falco cyanopus, and mentions a castle of the same name in the Voievodshait of Plock, and with such names of towns and castles in Serbia as Sokol (a falcon), Orel (an eagle) and Gestrab (a hawk)—two, Roztok; three, Zwerin or Schwerin, Lubof, called by the Germans Mickililnburg, *i.e.* great town II of Zwanof, etc., etc. (Schafarik, 588).

The Wagrians, as I have said, bounded the Obodriti proper on the west. They lived in the north-eastern part of Holstein, and were bounded on the north by the Eider, on the east by the Baltic, on the west by the Swentina, the Ploner Lake, and the Birzing. On the west they were continuous with the so-called Limes Saxonius, and on the south-west with the Polabi. Their chief towns were Stargard or Oldenburg, Lutilinburg, now Liutenburg and Bukowec, now called Lubeck, Plona, and Utin. Schafarik gives the various forms of the name as Wagri, Wagiri, Waigri, Wagrii, and Waari, and says he neither knows the right form of the name, nor its meaning; but this last form, which is taken from Widukind, the Saxon annalist, shows that the name is a corruption of the old name, Varini or Werini, a tribe which was the neighbour and relative of that of the Angli, and it is more than probable that the Slavic Wagrians were so called only when they invaded and occupied this district, formerly inhabited by the Varini. It has been generally considered that this occupation took place in the year 804, when we are told Charlemagne gave the land of those Transalbingian Saxons, whom he dispossessed, to the Obodriti. I believe, therefore, that they were a comparatively recent section of the Slaves, formed by emigrants from the country of the Obodriti proper. When these colonists occupied Wagria, they also, apparently, took possession of the Island of Femern, opposite the Peninsula of Aldenburgh, which in the days of Helmold was occupied by Slaves (Zeuss, 654).

South of the Obodriti proper and the Wagri were the Polabi, the Polabingi of Adam of Bremen and the anonymous "Annalista Saxo," and whose name, as I have shown, simply means the dwellers on the Elbe. That river bounded them on the southwest, and separated them from Saxony. On the west they were bounded by the "Limes Saxonicus," on the north by the Obodriti and Wagri, and on the east by the Warnabi and Linones. Their chief towns were Ratibor, called Raceburg in a document of the year 1154, and Racisburg by Adam of Bremen. Within their land was also Smilowopole. "In terram Polaborum in campum qui dicitur Smilowe" (Helmold, c. 34, p. 38, Schafarik, ii, 539). The former may be compared with the name Ratz and Rassa, a well-known town of the Southern Serbs, which occupied us in our last paper. Smilowopole means the country of Smilowe. I have little doubt that these Polabi were of the same race as the Obodriti, and doubtless a section of them.

According to Schafarik, the Smolinzi were a section of the Polabi. They lived between the modern towns of Boizenburgh and Dömitz. They are mentioned by the Bavarian geographer under the name of Smeldingon. The Frankish annalists refer to them, in the year 808, under the style of Smeldingi. In the Chron. Moissiac, it is said under the year 809, that the Saxons crossed the Elbe and attacked a town of "our Winidi," called "Semeldinc Connoburg," *i.e.*, the town of the Smeldingi. The fact that these Smeldings are called "our Winidi," by the Frankish Chronicle, shows they belonged to the same section as the Obodriti, and not to the rival race of the Wiltzi, and what makes this almost certain is that we find tribes of a similar name among the Eastern Slaves. One of these gave its name to Smolensk, a famous town of White Russia; while another section of them is found on the south of Bulgaria, on the borders of Thrace and Macedonia, on the River Meta, and was known as Smoleny (Schafarik, ii, 221). Many names in Russia are also derived from them, as Smolevici, Smolianka, a river Smoliaz and Smolin, in the government of Chernigof, Smolianici, Smolaki in that of Smolensk, Smoliany in that of Mohilef and Smolany, Smolarze, Smolen, Smolice, Smolinki, etc., in Poland. (*Id.* 590.)

The termination "ici" in some of these names, and of "ing" in Smolding, shows that the name is a clan name connected with some patronym, Smol or Smold. Their chief town seems to have been called Connoburg, which according to Leutsch is represented by a place called Kanneburgh, on the road from Zehdenik to Lychno, and according to Ledebur is Connof on the Eldena (Schafarik, ii, 590). The Linones bordered on the Polabi on the east, no doubt occupying the modern "Gau" of Linagga (Spruner's Atlas, map 31). They were limited on

the north-east by the Warnabi, on the south-west by the Elbe, on the south by the Bethenici, and on the east by the Wiltzi, and are named by the Carolingian historians in connection with the Smeldings, thus: "Filius imperatoris Karlus Albiam ponte junxit, et exercitum cui præerat in Linones et Smeldingos transposuit, etc." (Eginhardt, Peitz i, 195), and elsewhere (Zeuss, 651). They were also called Lini, Linai, Lanai, Linaa, Lingones, Linones and Hilinones. Schafarik has argued that the indigenous name was Glinani, and derives it from "glina," which was applied to many rivers, streams, etc. (*op. cit.*, 591). Their chief towns were called Lentschin, Luukini, or Lunzin, and in later times Lentsin and Leontia, the modern Lenzen; and Potlustin the modern Puttlitz.

The Linones are made a section of the Obodriti by Schafarik, a view which is very probable. Colonies of the Linones apparently found their way west of the Elbe. The river called Lûna by the Germans, and Glina by the Slaves, on which the modern city of Luneburgh is situated, reminds us of this. In the year 795 the Fuldensian Annals mention that Ulean, the Prince of the Obodriti, having been captured by the Saxons, died in the town of Liuni near the Elbe. Widukind glosses this as the monastery of Lüne in the Bardengau (Schafarik, ii, 590). The Linones are mentioned in 808 by Eginhardt, both in the annals and in the life of Charlemagne. They are called Lini by the Poeta Saxo, Linai and Lanai in the Chron. Moissiacense. In the Bertinian Annals of the year 839, and those of Fulda of the years 858 and 877, they are called Linones; by the Bavarian geographer, Linaa, and he says they possessed seven towns: "Linaa est populus, qui habet civitates VII." In a deed of Otho the First, dated in 946, the district is called Linagga; Adam of Bremen calls them Lingones; Helmold, Lingones, Lini, and Linoges; and the Annalista Saxo of 952, Linones. In some MSS. of Eginhardt, the name appears as "Hilinones," "Hilinonicum bellum," whence, as I have said, Schafarik, following Grimm, concludes that the indigenous name of the tribe was Glin, Glinai, or Glinsti.

We also find the name in the district between the towns of Arendsee and Lauchof, which was formerly called Lenegon or Lennegou, and referred to in a deed of Albert the Second, dated in 1208, as Linegow (Wersebe, Elbe Gaue, 254). I would remark that the name Uelzen which occurs in the district of Bardengau in Wersebe's map, has nothing to do with the Wiltzi, but is a corruption of Ulleshem, as the name is spelt in a document of 1142. (*Id.*, 247.)

East of the Polabi, properly so called, were the Warnabi or Wrani, and who are made a part of the Obodriti by Schafarik, as I think justly. By Adam of Bremen they are called

Warnabi or Warnahi. Helmold calls them Warnavi, and the Annalista Saxo, Warnabi. In a document of Pope Urban the Third, dated in 1185, their country is called Warnowe, in another of Pope Clement the Third, dated in 1189, Warnonwe, while in a third of 1222 it is called Wornawe. They were also known as Wrani, Wranovi, and Wranefzi. Their name is undoubtedly derived from the river Warnof, also called Wrana and Wranawa. We find the name occurring among the Eastern Slaves as Warna or Varna in Bulgaria, the River Warnawa in the Russian Government of Tambof, and the village of Warnowici in Kurland. The name is probably not originally Slavic, for the Teutonic Warini, who occupied the area of these Slavic Warnavi in classical times, bear a name clearly derived from the same root. Among the towns of the Warnabi were Malikof, the modern Malchhof, Wranowo (now Warnou), Werle, Warle, or Wurle, etc. (Schafarik, ii, 592-593).

The land of Warnowe is mentioned in a marked manner in a description of the boundaries of the bishopric of Mecklenburg in 1185, which runs thus: "*Silva, quæ distinguit terras Havel- liere (i.e., Havelland), scilicet et Munitz, eandem terram quoque Muritz et Vepero cum terminis suis ad terram Warnowe ex utraque parte fluminis quod Eldene dicitur usque ad castrum Grabow . . .*" While in a document of 1189 we read: "*Dis- tinguit tandem terram Moritz et Veprouve cum omnibus terminis suis ad terram quæ Warnowe vocatur, includens et terram War- nouwe cum terminis suis ex utraque parte fluminis quod Eldena dicitur usque ad castrum quod Grabow nuncupatur*" (Zeuss, 653).

Near Grabow, south of the Elde, and just on the borders of the Grand Duchy of Mecklenburgh, is a village called Warnof, which doubtless received its name from this people.

With the Linones are named the Bethenici, who are referred to among the Frank annalists, only in the Chron. Moissiac. under the year 811, where this chronicler writes, "*ul tra Albiam ad illos Slavos que nominantur Lanai et Bethenzi.*" (Variants of this name occur as Bethenzr, Bechelenzi, and Bethelclereri.) The Bavarian geographer speaks of them thus: "*Prope illis (Linaa) resident quos vocant Bethenici et Smeldingon et Morizani.*" Dithmar, says Schafarik, speaks of a special class of citizen warriors called Vethenici, and speaks of them thus: "*In ea parte (Misne urbis). qua satellites habitant, dicti Slavonice Vethenici, Cukesburgienses.*" Schafarik explains the name by the word wetnik, in plural wetnici (the Serbian cetnik cetniki), derived from the root wet, whence weta (habitatulum), powet (pagus,) witati (habitare) or from wetiti, zawetiti, hajiti, german- hagen, a fence.

Among the Diewani a town is called weika, where as in

other words the *k* stands for *t*: with *wetnik* may also be compared the Lithuan title *wetninkas*. *Cukesburgenses*, *i.e.*, *Kukesburger*, is explained as meaning *speculatores, excubitores, custodes arcis vel burgi cujusdam*. It would therefore seem that the name *Bethenici* represents a class of men, and has no ethnic value, and this is confirmed by the fact that it has left no traces in the topography of the district, for Pertz is clearly mistaken in connecting it with *Priegnitz* (*Schafarik*, 591-592, and notes). That name which now connotes the country south of *Mecklenburgh*, and bounded on the west by the *Elbe*, is doubtless derived from the *Brizani*. *Helmold* mentions these last with the *Stoderani*, saying: "*Brizanorum et Stoderanorum populi qui Havelberg et Brandenburg habitant*" (*Zeuss*, 651). *Havelberg* is a well known town. In the district of *Priegnitz*, the chief centre is *Pritzwalk*, which retains the name of the *Brizani* more closely. *Zeuss* mentions *Treuenbrietzen*, a place I cannot find on my maps, as also connected with them. In a document of *Otho the First*, dated in 946, we find the name *Nieleticigau* applied to this district: we are told the *gau* contained the towns of *Havelberg* and *Nizem*, now called *Nizof*, from which latter it doubtless derived this name, which is a mere synonym with *Brizani* for the people of *Havelberg*.

The *Brizani* probably occupied the borders of the *Elbe*, as far south as the *Spree*, for in *Spruner's* map of the *gaus* in this district, I find a name *Priecipini*, near the modern *Jerichof*, and a name *Pricervi*, now called *Pritzerbe*, which are probably derived from the *Brizani*, and are roughly made the southern boundary of the *Bethenici* by *Spruner*. The name *Brizani* connects this tribe with the Eastern Slaves, among whom we have the town of *Pruzany* in the government of *Grodno*, while "*slobody Pruzenske*" are named in a deed of 1389, as subordinate to *Moscow*.

There was a district of *Berzitie* in *Macedonia*; we also find the names *Berse* and *Bersen* in *Kurland*, *Berzy*, and *Berzany*, etc., in *Lithuania*, *Werezani* and *Warzino*, *Worzava*, *Werezani*, *Worzali*, and *Worzby* in *Russia*, and *Bersiti* in *Serbia* (*Schafarik*, ii, 143-144).

Besides this evidence we have the further fact that the subordinate *gau* of *Nieletici* already named, has its exact counterpart in that of *Neletici*, a *gau* of the *Sorabians* to which I shall refer presently. Another subordinate *gau* of the *Brizani* was that of *Liezizi*, marked on *Spruner's* map as occupying the southern part of the land of the *Bethenici*. It was situated between the *Havel* and the *Elbe*, in the district called in later times *Klytz*. This *gau* is mentioned in a deed of *Otho the First*, dated in 937, as *Ligzice*, in another of the same year as *Ligsitze*, and in a third of 946 as *Liezizi* or *Liczizi*.

Bordering the Bethenici on the south were the Morizani, who were bounded on the west by the Elbe, on the east by the Wiltzi, and on the south by the Sorabi. Their name is variously spelt as Mortsani, Moraciani, Moroszani, Moritzani, Mrocini, Moresceni, and Mrozini, while the gau which still remains, and which took its name from them, is called Morazena. Morozini, etc., and also Marscinerlande (Schafarik, 584). In the *Descriptio Civitatum*, quoted by Zeuss, we are told: "Erat illic (ad Havelam), vastissima silva, qua diebus quinque transmissa venit ad stagnum miræ longitudinis . . . Erat etiam illic barbarorum natio quæ Moriz vocabatur" (Zeuss, 652).

There can be no doubt that they took their name from this marsh or moratscha, and that their name merely means Marshmen. A similar Morasa is to be found in Serbia.

Their chief towns were Liezke, Luborn, Tuchim, Bedrici, Nedelize, Guntmiri, Grabova. Budin, etc. (Schafarik, ii, 585).

They are mentioned in connection with the Smeldingi and Bethenici (Zeuss, 652). This fact and the important one that one of their towns was called Bedrici, which is probably but another form of Bodrizi, the native name of the Obodriti, makes it very probable that like the other tribes already named, the Morizani were a section of the Northern Obodriti—a view which coincides with the fact that in the excellent map of the gaus of this district already quoted, the Morizani are separated and distinguished sharply from the Wiltzi.

I have now analyzed the various small sections which formed the nation of the Obodriti east of the Elbe, and have pointed out how they were situated between that river and the Wilzi. Now the Wilzi were a very aggressive people, and in constant feud with them, and we cannot doubt that they exercised a considerable pressure upon them. Even without this the more or less vacant lands on the west of the Lower Elbe would otherwise have naturally been colonized by emigrants from the eastern bank. I have already mentioned how it is supposed that Lüneburgh took its name from such a colony of the Linones. They doubtless also gave its name to the town Liuni, where in 795 the Saxons killed the Obodritan chief, named Ulean, and which has been identified as the monastery of Lune, between Bardewik and Lüneburg. But besides these Linones there were other Slaves, west of the Elbe, who were doubtless also Obodriti. Thus there were the Drewani, who lived on the banks of the Jeetze, a western feeder of the Elbe, on which is the town of Salzwedel. Their name is derived from *drewo* (wood) and simply meant woodmen, being the Slavicequivalent of Holsati; another tribe of Drewani lived in Russia. Schafarik says that according to the evidence of several German scholars, such as Henning,

Keyssler, Wersebe, etc., all the district on both sides the Jeetze is known as the Wendish district, and was divided into several sections, as Drewanerland on the west of the Jeetze, between the towns Welzen, Lühhof and Dannenberg; Glinianerland, in German, Lengof, or Lennigof on the eastern side of the Jeetze, Geyr or Kheyr, Nöring or Nehring, etc. In this district are several towns whose names prove the Slavic character of the old inhabitants.

Thus, Lühhof, the Slavic Liaukhef or Loikhowie, Dannenberg, whose Slavic name was Woikam and Weidors; Hitsaker, in Slavic Liauncii; Wustrof, in Slavic Wastrüf; Bergen, Slavic Liorska; and Klenze or Claniki, Slavic Klonzka (Schafarik, 593). Lüneburgh itself, Glein, *i.e.*, Glin, Salzwedel, Slavic Lozdit or Lozdi; Gartin, Gorstii; Schnakenburg, Godegord, *i.e.*, Hadj Hrad, or snake town, Arendzee, Wlazdeiske, etc. (*id.*, note 3). South of this area is the district now known as Altmark, *i.e.*, the old frontier, which was formerly known as Beleseim, Belesem, Belshem, Belsheim, Balsamia terra, Balsamerland, Belxa. Zeuss explains the name as derived from the Slavic Bielozemia, Bielazemia, White Land. It was a mere western prolongation of the marshes on the eastern side of the Elbe, and its German names show by whom it was occupied. These were Wischweneden and Rohrweneden. Here too, in documents of the tenth and eleventh centuries, we find Slavic names, such as Clenobie, Centonie, Bremetzhe, Slautiz, etc. (Schafarik, 593 and 594, and note 1, 594).

If we move further south we still find traces of old Slavic occupancy. Slavic names occur along the whole left bank of the Ohre, a western tributary of the Elbe.

Thus we read in a document dated in 937, in the time of Otho the Great: "Ex aquilonali parte Horaba fluminis in locis ita nominatis, Mosan, Pelinizi, Dudizi, Wizoboro, Vellpuchi, Zelici."

Dithmar gives us the Slavic name of Wolmirstadt in the phrase "urbs Ualmerstidi Slavonice autem Ustuire eo quod Ara et Albis fluvii hic conveniunt, vocata." The name is derived probably from Usta, mouth, the Ohre probably having formerly fallen into the Elbe at this point (Zeuss, 660). In this neighbourhood we have other traces of Slavic occupancy in the old names Jeseritz (Jazarice), Mieste (miesto), Tarnewitz (Tarnowice, compare Polish Tarnof), Dolnitz (Dolnice), Kobbeltz (Cobbelici in old deeds), Wendisch Brome, Mellin (Bohemian, Malin); and on the eastern side of the Stocken Lake we have the towns of Berchmere, Abbanthorp, Varenthorp, Pychenuzen, Ellenbeke, Watekoten, Budenstede; of which we are told, in a deed of 1161, "quarum incolæ adhuc Sclavi erant" (Zeuss, 660). The Slavic language survived in some of the places on the west of the Elbe

till the last century, and divine service was said at Wustrof in Slavic as late as 1751 (Zeuss, 661).

These Slaves west of the Elbe, I consider, as others have done, to have been colonies from the other side of the river: to have been in fact Obodriti, who perhaps retired before the aggressive policy of the Wiltzi.

On moving southwards we enter the land of the Sorabians proper. In contact with the Morizani, and bounding them on the south was the gau of Zerbisti, whose name survives in Zerbst. It was bounded on the east by Lusatia, and on two other sides by the Elbe. The name occurs in a deed of 949 as Ciervisti, in another of 975 as Kirrusti, and in later ones of 1103 and 1161 as Zerbiste and Cervisti. It is a palpable derivative of Serb, and several names of villages, such as Zurbici, Zribenz, Zorbweh, Serebez, etc., between the Elbe and Saale, show very plainly what was the native stock here.

In Spruner's map we find the neighbouring gau of Plone also assigned to the Sorabians. This gau derives its name from the River Plona, between which the Havel, the Nuthe, and the gau of Zerbisti, it is situated. It is called Ploni in 949, etc. In other early deeds this gau is otherwise called Zucha, the modern Zauke (Schafarik, ii, 386). South of Zerbisti and Ploni we have a number of small gaus. Two of these bear the name of Nisseni, and in contact with the Zerbisti and the other higher up the Elbe, between the Dalameni and the Milciani.

The two gaus are separated from one another. Their situation and boundaries may be admirably studied in Spruner's excellent map of the gaus of Slavania. The name occurs in deeds of Otho the First, dated in 948, 965, and 967, as Nisizi, Nizizi (the province), and Nisisi. In others of Otho the Second, of 973, 980, and 997, as Nitaze, Nikiki, and Nizizi. In one of Henry, of the year 1004, as Nizisi. In Dithmar, in 1018, as Nicicisi; in another deed of Henry, in 1069, as Niciza. In one of Count Adalbert, in 1073, as Nithsice, etc. In this gau we find the town of Belgern mentioned as early as 975, under the name of Belogora; Treskovo, in 1130; Sremsnica, in 1130; Mezumroka, in 981, etc.

South of the gau just described was that of Susali. The Susoli or Siusli are mentioned in the Fulda Annals, under the years 869, 874, and 877, and are called Siusli and Siusili; Alfred the Great calls them Syssyle or Sysele.

In deeds of the time of Otho the First, dated in 961, Siusile; in another of 965, a town of Susli is mentioned; in another the gau is called Siusilli; it is called Suselitz in one of 973, of Otho the Second; and Siusili in two of Otho the Third, dated in 985. In another of the Emperor Henry the Second, of 1004, the town

is called Siusili. Dithmar calls the gau Siusuli and Siusili; Helmold, Susieti. That the Siusili were Slaves is clear from the statement in the Fulda Annals, where we read of the "Sclavi qui vocantur Siusli," and in deeds of Otho the Second, of 985, with the phrase "terra Sclavinica Siuseli." The old towns within its borders also bear names which are clearly Slavic, Vetowizi, Resin, Kryn, Tornaf, Kemnitz, Mortitz, Rokenitz, Doberschwitz, Strelen, etc. The name of the tribe occurs in the neighbouring gaus. In that of Nizizi we have the town of Zulsdorf mentioned as early as the reign of Otho the First as Susili (Schafarik, ii, 603). I find in Spruner's map a place, Suseliz, in the small gau of Weitaba. Helmold mentions a district called Susla in Wagria, where Adolf the Count of Wagria, on the extermination of the Slaves, in 1139, planted some Friesians, and where the village of Susil still survives (Schafarik, ii, 603). Further north still, we have in the extreme northern peninsula of Jutland a name which is very embarrassing. This peninsula is called Wend Sysse, and it has been suggested, with some probability, that it took its name from another section of the Susili, who found their way there at the time of the northern migration of the Obodriti. The name is also a familiar one in Russia. (*Id.*, ii, 116 and 117.)

Let us now revert to the Susali on the Middle Elbe. West of them and south of the Elbe, we find several small gaus, namely, Serimunt, Nudhice, and Nelectice. Serimunt, formerly Zermunti, lies between the Saale, the Elbe, and the Mulde. It is first mentioned in a deed of Otho the First, in 945, as Ser-munti and Serimuntelande; in a deed of 952, Serimunt; in 964, Serimunt; in 965, Sirimunti; in one of Otho the Second of 973, we have mention of a Mark of Serimodem; in 974 we meet with Seremode; in 978, Zermute; in 980, Sirimunti; in 986, Cirimundi; in 992, Sirimunti. etc.

The name may be compared with those of Zirmuny and Zirmuny, in Lithuania (Schafarik, ii, 60). We may also compare with it the name of the town of Inner Sarmatia, mentioned by Ptolemy, which he calls *Σερμων* (*id.*, i, 512), and the Croatian chieftain's name of Sermon, who had his seat at Srem. (*Id.*, ii, 291 and 302.)

The Nudhice lay to the south-west of the Sirimunti and east of the Saale. Their name still survives in the village of Neutz. The gau is mentioned in two deeds of Otho the First, and is there called Nudzici, and in one of 965, Nudhici.

West of the Elbe, "in Suchalande," we meet with the mention of a priest "de Nydycen," in a deed of 1190. In Russia we have places called Nudyci, in Minsk, Vologda, etc., and in Bohemia, the names Nutice, Nucice, and Nuzice. South of this

gau lay that of Nelectice, between the Saale, the Elster, and the land of the Kolidizi. We have already met with a gau with a similar name in the land of the Brizani further north. In two deeds of 961, the name is spelt Neletici; in one of Otho the Second, of 973, Neletiki or Neletizi; and in another of 975, Neletiki. Leutsch thinks the name survives in the modern Neglitz (Schafarik, ii, 605).

North of the Neletici and east of the Nudhici lived the Coledizi, probably so called, according to Schafarik, from the Goddess Koleda, as the Staditzi and Stoderani were probably named from the God Stado or Stodo. We have a place Koledzian in Eastern Gallicia, and the Russian men's names Koleda and Koledinskii. Prudentius of Troyes, in the year 839, speaks of a campaign, "contra Sorabos qui Colodizi vocantur," thus identifying them unmistakably as Sorabians. The name appears in documents as Coledizi, Cholidici, Colidiki and Colidici; the town Colidici mentioned by Dithmar is the modern Kolditz on the Mulde, while their other town of Kesigesburgh, according to Leutsch, is Guetz or Quetz, near Landsberg. Pertz identifies it with Kothén (*id.*, 602). While the Colidici bordered on the Susali on the west, the latter were in contact on the east with the Sitizi, so called apparently from a town Citice on the Elbe, in the land of the Nizizi (*see* Spruner's map). The name occurs as Zitici, Cicitze, Citizi, Zitrici or Zittici, etc., and it may be compared with those of Ziticina in the land of the Wends, Zitomu, in Russia, etc., etc. (*id.*, 602). Sucha, Olesnik, Domië, etc., are named as towns of the Sitizi.

South of the small gau we have just described was that of the Khutizi or Skudici, situated west of the Dalameni, and the Siusli extending as far as the Saale, and watered by the Elster and the Mulde. The district is now known as the Mark of Merseburgh and contains the famous city of Dresden. Dithmar, in 892 and 970, speaks of it as Khutici. In a deed of Otho the Second of 974, it is called Khutizi, in another of Otho the Third, 997, also Khutizi. In one of Henry the Second of 1004, there is mention of a town of Khut, according to Leutsch, either Gotha or Gauth. In 1013 we have Gudici, in 1045 Guodizi. The town called Skudici by Dithmar is the modern Schkenditz. In deeds of 1004 the Gau is called Skeudiz and Schutizi; and in another of 1041 we have the form Zcudizi (Schafarik, ii, 605 and 606). The variation of name has led Leutsch to make two gaus out of it, but this view seems very improbable and is discarded by Schafarik and the author of Spruner's map. With this name may be compared the town of Shudy in Lithuania, two villages called Khutée in the district of Lublin and Zachutici in the government of Minsk.

The south-eastern part of the land of the Northern Serbs which lay east of the Saale, south of the Mark of Merseburgh, and was watered by the Upper Elster, formed a compact district known as the Mark of Zeitz, so named from the town of Zeitz (called Ciza and Cisa in mediæval documents). This district was known specifically as Serbsko, or the Serbian land. In documents of the year 800 it is called Sarowe, and is thus referred to: "Regio provincialis sita juxta Boemiam Sarowe nuncupata;" and again, "Provincia Sarowe dicta . . . quidam comes de Boemia nomine Thacolf contulit" (Schafarik, ii. 606, note 2). In a deed of 1040 we have mention of a gau Zurba, and in 1136 of Swurbelant, which both refer to this district.

This land of the Serbs, or Mark of Zeitz, comprised several minor gaus, which are clearly marked on Spruner's excellent map ("Series of the German gaus," Number 4). These were respectively known as Weta, Weda, or Weitaha in the north-west corner, then bordering it on the east, Tukhurini, again further east on both banks of the Elster, Puonzowa, then Plisni on the Plisa or Pleitse; Zwentokowa or Zwikowa (Zwickau); Gera or Geraha (probably originally Gora); Strupenice; Oila, otherwise called Brisingau and Dobnawa.

Near this district Schafarik would place the three gaus of Werenofelda, Fergunna and Genewara, mentioned in the campaign of Charlemagne's son Charles against the Bohemians in 805 and 806 in the Chron. Moissiac., and he identifies two of these gaus with the Verizane and Fraganeo of the Bavarian geographer, the former of which contained 10 towns, and the latter 11. The exact situation of these gaus is not known.

Pertz would identify Werenofelda with a gau Weri on the right bank of the Elbe, opposite Magdeburg, Fergunna, with some district on the Eger in Bohemia, and Genewara as a corrupt form of Weri-Gau. Ledebur identifies Werenofelda with the land on the River Werra, Fergunna with Wurgau on the road from the Fichtel Mountains to the River Eger, and Genewara with Kamoren or Gommern in the neighbourhood of Magdeburg. Lelewel connects the Verizane of the Bavarian geographer with the towns of Brisen and Brisnik on the Neitze in Lusatia. The name Fraganeo or Fergunna is perhaps the Gothic fairguni, Scandinavian fiörgyn, Anglo-Saxon firgen ("mons, regio montana") with which the Slavic Perun and Lithuanian Perkūnas are connected.

Besides the larger colonies of Slaves which we have described there were many smaller settlements of them west of the Elbe, which are very interesting as sporadic elements in the general population of Central Europe. The small colonies were the result of the wars of the Franks and other Germans with

their Bohemian and Sorabian neighbours, when a large number of prisoners were naturally carried off, who were planted as colonists in various districts. So great must have been the number of these, that, as is well known, a Slave came to mean in German, a person in a servile condition. As early as the year 740 we find Saint Boniface re-peopling the waste districts in the diocese of Wurzburg and of the monastery of Fulda with Slaves, and in 751 Pope Zacharias granted him permission to levy taxes on those who were still unbaptized (Schafarik, ii, 607). Thence we find that in the registers of Fulda, Slaves are mentioned among its dependents in the woody districts round the monastery, such as in Ludera, Luterembach, Summerde, Hagen, Vargelaha, Lupenzo, Nitharteshusen, Salzunga, Gerstungen, Cruciburg, Heringen, Sulaha, Ugesbere, Geysaha, Bezzingen, Biberaha, Nuenbure, Rora, Engelnarestat, Otricheshusen (Schann. Buchonia vetus. Schoettgen et Kreysig Diplom. i, 46-48, cited by Zeuss, 646).

The name Wend occurs elsewhere in this district; thus, in a deed of 958: "Winatsazen et in tribus villis Sclavorum et Eitenwiniden in pago Salagowe" (Schoettgen Diplom. i, 18). Vuinidohoheim, Winithoheim, and the phrase "in pago Grapfelda . . . in loco Vualahramesuwinida" occur in others (*see* Zeuss, 646). Of Slaves in the district of the Lower Hartz near Mansfeld we have mention in a deed of 973, in which there is the following interesting notice: "De possessionibus S. Bonifatii martyris præscriptus venerabilis abbas Vuerinharius pari mutatione concambii dedit in jus et proprietatem S. Mauritii martyris quicquid in Frekenleba et Sekkensteti, Arneri, Lembeki et Faderesrod, Kerlingorod, Mannesecsfeld, Duddondorf, Rodonvualli, Menstedi, Purtin et Elesleiba aliisque villis, villarumque partibus, *quas Slavainicæ familiæ inhabitant* . . . visus est habere" (Schann Traditt. Fuld. 241; Zeuss, 647).

We also read in old deeds of a place called Ernesteswinideni in the Valley of the Aisch, of Woltheresuwinidon in Thuringia, Nidarun Winida in Carinthia, Moinuwinida or Moinvuiniden and Nabauwinida in the Fichtel Mountains, and Adalhartsuinenen Gerhartiswindin and Kotzenwinden elsewhere; while on the Aisch there are still found Brodswinden, Ratzenwinden, Poppenwind, Reinhardswind, etc. (*Id.*, 646, note.)

West of the Saale we meet with the following Slavic names in a deed of 993:—Riedauuizi, Drogolisci, Siabudisci, Osutiscie, Cedlisciani. In another of 937 we read: "In loci marca, quæ Smeon dicitur XII familie Sclavorum cum territoriis quas ipsi possident." In another of 955, "Villa Spileberg quæ etiam alio nomine Sibrounici dicitur, in marca quoque quæ Smeon nominatur sita." This Smeon is the town of Schmon near

Querfurt. These names are more numerous in the country of the Upper Main on the Rednitz and the Aisch, which district was called the Slave-land, and its inhabitants Wends of the Main and Rednitz.

Thus we read in a document of Louis the German, dated 864: "Qualiter . . . dominus Karolus . . . episcopis præcepisset, ut in terra Sclavorum, qui sedent inter Moinum et Radantium fluvios, qui vocantur Moinuvinidi et Ratanzuvinidi una cum comitibus qui super eosdem Slavos constituti erant, procurassent, ut inibi sicut in ceteris Christianorum locis ecclesiæ construerentur, quatenus ille populus noviter ad Christianitatem conversus habere potuisset, ubi et baptismum perciperet." They are called Moinuvinida and Radanzuvinida in the foundation charter of Arnulf, dated in 889. In a deed of 824 we read of the town of Thurpfilun near the bank of the Moin "in regione Sclavorum." In another deed of 911 we read of a place called Fihuriot as belonging to the king "cum cæteris Sclavienis oppidis illuc juste conspicientibus." In another of 796 we have the phrase "tertiam partem in Sclavis in Heidu." In the Valley of the Aisch, after speaking of Hohenstat near the River Cisca (*i.e.*, Eisga or Eisca), we are told that in the same Slavic region ("in eadem Sclavorum regione") the towns of Tutenstete, Lonrestat, Wachenrode Sampach, together with their Slave inhabitants "simul cum inhabitantibus Sclavis" were accustomed to pay annual dues to Fulda; similar dues were payable by 40 mansi of the Slaves living in the town of Medabah (Zeuss, 647-648).

But as Zeuss says, the Slavic element in this district must have been subordinate to the German or was soon absorbed by it, for the topography is Teutonic, Thurpfilun (= Durfilin, Dörflein, now Dörfleins); Fihuriot (Veehried, Viehreit, now Vieret), and Heida, all on the Main near Bamberg are Teutonic names. The names in the Valley of the Aisch, as well as two words from that district preserved in a deed of 889, are German also.

These words have been discussed by Grimm (*Rechtsalterth.* 298), and occur in the following sentence: "Decimam tributi quæ de partibus orientalium Franchorum, vel de Sclavis ad fiscum dominicum annuatim persolvere solebant quæ secundum illorum linguam steora vel ostarstuopa vocant" (Zeuss, 648).

The topography of the country immediately west of the Saale is a striking proof of the extent to which Slavic colonies had planted themselves there. Thus we find such Slavic names as Leugast (in old documents Lubegast), Schorgast, and Trebgast in the upper valleys of the Main, and probably also in the same

neighbourhood we have mention in a deed of 1024 of a villa *Slopece* in pago Ratenzgowe (now Schlop on the River Selop) with which may be compared the Polish Slupce, near Gneissen; and again in a deed of 1055, a “vicus nomine Silewitze . . . situs in pago Ratenzgouue,” now Selbitz on the same river.

On the Rodach we have Graiz (formerly Grodeze, Grodiz), which is the same name as Graiz on the River Elster, Redwitz, which is like similar names on the Saale; Zedlitz, which is like the Polish Scedlec and the Bohemian Cedlczany, derived from the Slavic siedati to settle, and equivalent to the Anglo-Saxon Saetan, and the German setzen; Schwurwitz, which is a palpable corruption of Servitza; Schmöltz, a similar corruption of Smolensk; Kups formerly Khubitz (Zeuss, 649, note). As to the remoter Slavic name in Franconia, Zeuss mentions Graiz, Mitvitz, and Mödlitz on the Steinach; Zedlitz and Kups (upper and lower) near Staffelstein, Scheslitz, Zwernitz, (originally probably Swerince, and to be compared with Schwerin) Kreussen (anciently Crusni and Khrusin), Oelsnits (upper and lower) derived from the Slavic olsza the elder, whence also the Oelnitzbach, near Berneck, Doberschitz, Döberein, Kuhnain, the mountain Kuhn. near Neustadt, and Dolnitz. (*Id.*, 650, note.)

It would seem that the greater part of Eastern Franconia, and the districts of Wunsiedel, Waldsassen, Tirschenreut, and Bernau, as well as the greater part of the land on the Naab, the Rednitz and the Upper Main about Baireuth, Bamberg, Würzburg, and Nürnberg was in the ninth and tenth century occupied by Slaves. A large number of these settlements belonged to the Poradnitsi or inhabitants of the Rednitz, of whom we read in the life of St. Emmaramus: “Tradidit cuidam Thuringo in finibus Parathanorum, ad id temporis crudelium paganorum.” South of the sources of the Rednitz is a place called Wilzburgh, in Old German Wiltenburgh, perhaps derived from the Slavic Wiltzi. It was not till the twelfth century that the pagan Slaves in this district were converted, although it was numbered among the German gaus as early as 889 A.D. The see of Bamberg was founded in 1007, and the same year it was decreed at the Synod of Frankfort, “ut paganismus Sclavorum inibi (at Bamberg) destrueretur.” In the acts of the Synod of Bamberg in 1058, we read: “Erat enim plebs hujus episcopii utpote ex maxima parte slavonica.” In 1111 we find Arnold, Bishop of Halberstadt, writing to Henry, Bishop of Bamberg: “Totam illam terram pene silvam esse, Sclavos ibi habitare,” etc.; and in old deeds of Bamberg, the Slaves are frequently mentioned, as in the following curious sentence: “Quædam mulier Gothelindis nomine, cum esset

libera, sicuti Sclavi solent esse . . . delegavit ad altare," etc. The dialect and costume, the appearance and customs of the people of the district betray their Slave origin (Schafarik, ii, 609).

In the north-western part of Bavaria, in the district known as the Nord gau, there is marked in one of Spruner's maps of the German gaus, a district of Culm. This is doubtless the same which Zeuss wrongly puts in Thuringia, and which is thus named in a deed of 966: "In villis et marchis subnotatis scilicet in pago *Culm* et in villa Culm-naha et in Urbah et in villa Bertellesrode" (Zeuss, *op. cit.*, 649). This Culm or Khulm is doubtless derived from the Slave Chulm or Chlm, a mountain. The name occurs also in the town of Culmbach on one of the upper streams of the Main. While Cranach, not far off on the Khremnitz, a feeder of the Rodach, is similarly derived in all probability from the Slavonic Chraniti mountains, as in the district of the Craina in north-western Bosnia. We thus find north-eastern Franconia thickly sown with Slavic names. If we cross its northern boundary into Thuringia, we shall meet with a gau called Winidon, no doubt named from the same people. Within its borders is marked on Spruner's map the settlement of Wolfhereswinidon.

If we advance further west and south, we shall find sporadic Slave names in various parts of Germany. A considerable colony of them also is found in Switzerland. This last colony is mentioned in old documents—in one with the phrase "homines qui vocantur Wiinde" (Acta Murensia in Kopps Vindicie, Schafarik, ii, 609). Thence we get in Switzerland such names as Khunitz, Bumplitz, Czernek, Gradetz, Krimentza, Luc, Visoye, Grona, etc. It is also a very curious fact that the descendants of the people whom the Swiss call Huns, and who are settled in the Valley of Anniviers, six miles from Sitten in the canton of Wallis (*i.e.*, canton of the Welsh or foreigners), still use a corrupt Slavic dialect. They are popularly looked upon as descendants of Attila's Huns (Schafarik, ii, 609). Thus we find the Slaves widely scattered over the countries west of the Elbe. It is not meant that all these Slaves were of the Serbian stock. Of this we have no evidence, nor is it in fact probable, for the Huns and other invaders probably were followed by Slaves of other stocks, but there can be small doubt that the greater part of them were emigrants from the country east of the Elbe, where the nearest Slavic settlements were, and which, as I have shown, were Serbian. Let us now return once more to the east of the Elbe, and examine the country I have identified with White Croatia, which as I believe was largely conterminous with the well-known district of Lusatia

or Luzice. The people of Upper Lusatia call themselves Srbje or Serbians, and those of Lower Lusatia, Serske, another form of the same name (Zeuss, 642).

The gau Luzice, according to Schafarik, derives its name from "luh," a meadow or flat low ground (*op. cit.*, ii. 595), and according to Zeuss from "luzla" a bog. (*Op. cit.*, 645.)

This gau of Luzice answered nearly to the well-known modern district of Lower Lusatia, that is to the ecclesiastical districts of Dame, Schlieben, Luckau, Kirchhain (Kustkof), Kalau, Kottbus (Chotebuz, Khocebe), and Spremberg (Groddek). The name was afterwards extended much beyond these limits—as far as the Oder on the north and east, comprising the gaus of Slubjany, Lubusany, Zarowany, Trebowany, etc., and finally included the southern districts of the Milciani and Nishani or Nissen. When it had reached these limits, Lusatia was created a Margraviate, and is a well-known name in mediæval history.

The original gau whence the name thus spread is first mentioned by the Bavarian geographer, who calls it Lunsizi, and tells us it contained 30 towns. In deeds of the reign of Otho the First, dated in 949 and 961, it is called Lusici; by Reginon in 963, Lunsinzani; by Widukind of Corbey in 963, Lusiki; by Dithmar in 963 and 1005, Liusizi, Luzici, and Luizizi. In deeds of 965 and 967 of the Emperor Otho the First, respectively Lusici and Lucizi; in one of Pope John the Thirteenth of 968, Luzici; others of Otho the Second of 973, Lusice; and of the Emperor Henry the Second in 1004, Lusici. Within it were the towns of Tribus or Trebac (German Drebkof) named in 1004, Luibocholi or Libehol, Mroscina, Grothlisti or Grodzisce, Liubsi, Zlupisti, Gostewissi (*i.e.*, Kottbus), Dobraluh (beautiful meadow) mentioned in 1005, and Ciani in 1015, etc., etc. (Schafarik, ii, 596).

On the north-western edge of Lower Lusatia is the small town of Goltsen, which is called "Castrum Golzin" in a deed of 1301; a neighbouring stream is called the Goltze. These names explain the mention of a tribe called the Golensizi by the Bavarian geographer, among whom he says were five towns. The name may be compared with a castle in Russia called Golsany (*id.*, 596). North of the Luzici was the gau of Selpoli or Selpzli, called Selpzuli, in a deed of Otho the First, of the year 948. In others of 961 and 967, it is called Selpoli, etc., etc. A river flows through the district called the Schlubbe or Slube, whose name Schafarik connects with that of Selpoli. The true form of the tribal name, however, he makes to be Slubeani or Slubliani. Between the Slubeani and the Lusizi, on the Upper Spree and Neisse, was a small gau, called Nissa, mentioned as

early as the year 965 in a deed of Otho the First as Nixiti, and by Dithmar in 1005 as Nice. (*Id.*)

North-east of the Slubliani or Selpoli were the Lubushani, the inhabitants of the town of Lubusha, the modern Lebus and its neighbourhood. This clan was called Liubuzzi, by Adam of Bremen, and Leubuzi, by Helmold. Their country, which was long subject to the Poles, was the seat of a bishopric (*id.*). The Lupoglani or Lupiani, called Lupiglaa by the Bavarian geographer, and owning, according to him, 30 towns, lived according to Lelewel on the river Lupa, a tributary of the Neisse; a tributary of the Elster bears the same name, while there is a river Lupof in Pomerania, and another called Lupogolowa in Russia; an Illyrian Castle and Lordship Lupoglava, the German Mehrenfels, and two Croatian villages, one in the district of Agram, and the other in that of Warasdin. This all goes to prove that the Lupoglani belonged to the eastern branch of the Slaves and were probably a section of the White Croats.

In the east of Lower Lusatia is the town of Sorau or Sarof, which gave its name to the gau of Zara, named as early as the time of Dithmar. It was bounded, according to Leutsch, on the west by the Spree and the Neisse; on the north by the Oder, on the east by the Bober, and on the south by the land of the Milciani. The town of Trebula or Triebel, in Lower Lusatia, probably gave their name to the Trebowani, mentioned in the foundation deed of the archbishopric of Prague, and by Cosmas, with the Chruati, the Boborani, or inhabitants of the Bober, and the Zlasane or Silesians (*id.*, 598), which last folk we shall consider in a future paper. South and south-west of these several gaus, which probably constituted White Croatia proper, we have two others, named respectively Milciani and Dalamensir, which were very closely connected, and form the modern province of Meissen. We will now turn to them. Immediately south of the gau of Lusize were the Milciani, who occupied the country now forming the province of Upper Lusatia, between the Bohemian mountains and Lower Lusatia. They are first named by the Bavarian geographer, who calls them Milzani, and tells us their land contained 30 towns. They occur very often in the accounts of the war between the Germans and the Poles, under Boleslaf Chrobry. They are called Milzeni in 922; Milceni in 946; Milcini in 1000, and Milzieni in 1002, by Dithmar. Their country is called Miltzæ, in a deed of Prince Metschislaf in 991, Mizlavia and Milzavia, by Adelbold in 1002 and 1003; Milkeani and Milzania in 1003, in the Chron. Saxo.; Milznia in 1004, in the Annal. Saxo.; Milsa in a deed of 1071, and by Cosmas, in the foundation deed of the Prague arch-

bishopric in 1086, Milciani; in a document of 1131 the district is called Milesko; in a deed of 1144 it is called Miltze, in another of 1165 Milzana, etc. All these forms Schafarik derives from the Slavic Milcin, plural Milci, or from Milcanin, Milcenin, plural Milcané, Milcene, Milcko, or Mileka; and as I shall show presently derives them from the Lettish and Lithuanian Milzis or Mīlzins (Schafarik, ii, 599). The chief town within the gau was Budusan, the modern Bautzen (Zeuss, 645). The name of this gau occurs also in Dacia. Thus we read in the Bavarian geographer: "Isti sunt qui juxta eorum fines resident. Osterabtrezi (*i.e.*, the southern Obodriti), in qua civitates plusquam C sunt, Miloxi in qua civitates LXVII." They lived, probably, on the river Milkof, in Moldavia, and gave their name to a bishopric first mentioned between 1370 and 1462 (Schafarik, ii, 202-3). Not far from here, in the modern Bessarabia, is a village called Milceni. We also have a tribe of the same name, and called Mileggoi, by the Greeks in the Peloponnesus. (*Id.*, 228.)

Near neighbours of the Milciani were the Dalamensi. They perhaps formed a section of the Milciani, as the name by which they are known in the Chron. Moissiac., where they first occur in the year 805, is Demelchion, which Schafarik suggests may be "de Milciene." In the Annals of Fulda, in 865 and 880, they are called respectively, Dalmatæ and Dalmatii. Alfred the Great calls them Dalamensan, and the Bavarian geographer, Talaminzi. He says of them: "Juxta illos (Serbos) sunt quos vocant Talaminzi qui habent civitates xiiii." In a deed of 981 they are called Dalminize, and are given the alternative name of Zlomekia. Dithmar, in 908, calls them Delemenci, and also Glomazi, and Zlomizi, and he gives as the explanation, "Provincia quam nos teutonice Delemenci vocamus, Sclavi autem Glomaci appellant;" and in a document of Otho the Second, of 981, we read, "Dalminize seu Zlomkia." The Slavic form of the name survives in "Lomatsch," no doubt formed from Glomaci. As a lake in this district was called Glomuzi, it is not improbable the tribe took its name from it—a name derived probably from the Polish "glom," flowing or fluid. It may be remarked that one of the old towns of the district was called Serebez, now Schrabitze, which is probably connected with the name Serb. Both the Milciani and Glomaci, whose joint country formed the Mark of Meissen, were closely connected in their history with the Bohemians.

There still remains for us to describe a small gau occupying both banks of the Upper Elbe under the Bohemian mountains and between the Milciani and Dalamensi. This was called Nisseni, a name which, like that of the gau of a similar name already mentioned, was derived from Niz, Nizina, lowland or

valley. It is called Niseni and Nisani in 984 and 1004, by Dithmar and Nisane in later documents. The name may be compared with that of the famous town of Nish and a river of the same name in Serbia and Bulgaria.

This completes our survey of the topography of the Northern Serbs, but we have still to deal with a very embarrassing fact. There is no mistake about the conclusion that is forced upon us by the evidence we have here adduced, and the historical evidence that we shall adduce presently, that these Northern Sorabians and Obodritans belonged to the Eastern division of the Slaves. But when we examine the linguistic evidence, we are met with a profound difficulty, which has embarrassed all inquirers in this field. The language of the Sorabians and other Polabian Slaves belongs not to the Eastern, but to the Western division of the Slaves. In this inquiry we have three sources of evidence, namely, the well-known remains of the Lusatian tongue, those of the Drewanian language, and the scanty list of names, etc., in use among the other Polabian Slaves, and preserved in the Latin Chronicles. The evidence of all three is practically the same. The Lusatian language, which falls into two well-marked dialects, is placed by the two excellent authorities, Dombrowski and Schafarik, between the Polish and the Bohemian; but inclining more in its deeper vowel, *o*, and its frequent sibilants for *d* and *t*, to the Polish, and not marked by the Bohemian nasals (Dombrowski, quoted by Schafarik, *op. cit.*, 618, note 1). The Upper Lusatian is more like Bohemian, and uses *h* for *j*; the Lower Lusatian, still spoken about Kottbus, is more like Polish, and retains the *g* (Zeuss, *op. cit.*, 645, note).

The modern Lusatians, as Schafarik says, are clearly descended from the ancient Sorabians and Milciani. That their language was altered by the short subjection they were under to the Poles and Bohemians is hardly probable, and the fragments of old Lusatian forms which survive in the chronicles are essentially the same as the modern language (Schafarik, ii, 618). The Drewanian language, which survived as a spoken tongue until the seventeenth century, and of which we have considerable remains, may perhaps be taken as a specimen of the old tongue of the Obodriti. Although it differs in some respects from the Lusatian, it belongs, nevertheless, essentially to the Western, and not to the Eastern division of Slave tongues. Of this, Schafarik has collected ample proofs, as also of the similar relationship of the topographical and onomastical words belonging to the various Polabian Slaves, which occur in the chronicles (*op. cit.*, ii, 619–624). The only explanation of this paradox which seems reasonable is either that the Sorabians and other Polabian

Slaves were a second invasion superimposed on a previous layer of Western Slaves which already occupied this area, or else that the common element which these Northern Serbs had with the Southern ones was not in the mass of the people, but in the upper strata, which, as I have shown reason for believing, were not of Slavic but of Hunnic blood, and that the common name covered not so much a homogeneous race, as a common caste of leaders belonging to one stock. This, however, can only be offered as a tentative conclusion.

Section II.

Having examined the topography of the Northern Serbs and their relatives the Obodriti, we may now try and track out as far as we can the earlier part of their history. In doing this we shall have to reconsider somewhat the view urged in the two former papers, on the authority chiefly of Schafarik.

That the Croats and Serbs were invited to settle within his borders by Heraclius, about the year 634-640, we have no reason to doubt. The question as to whence they came from is one, however, that admits of some controversy. The problem is a limited one. There is no disputing that they came from the land beyond the Carpathians, but the question remains whether they came from Gallicia or the country further west.

Now the migrations of races are marked by certain limiting circumstances; whole peoples do not migrate over impassable ranges of mountains, nor, except under very peculiar circumstances, do they cross deserts or wastes. The route followed by many emigrants has been consequently the same. In the present instance we are to some extent limited in our choice by the configuration of the country north of the Danube. When we first meet with the Serbs it is in the neighbourhood of Belgrade. It is with the Governor of Belgrade that they conferred about recrossing the Danube. Nor have we any traces of Serbians in Wallachia, except in its extreme western part. Now if the Southern Serbs had migrated from Gallicia, marched through the Bukovina and Moldavia, and rounding the eastern buttresses of Transylvania had then crossed Wallachia, and thus reached their present country, we should assuredly have expected them to leave some traces of their passage; and, further, they would in that case, in accepting the invitation of the Byzantine Emperor, have probably entered Bulgaria. But not only is this not the case, but we actually find that Bulgaria formerly stretched considerably more to the west than it does now, and that the Serbs have been pushing their way eastwards as well as south-

wards. To anyone who examines the problem as it ought to be examined, with the map before him, there cannot be much doubt that the route here mentioned was not that followed by the migrating Serbs.

Such an examination will make it very clear that the invaders came not from Wallachia, but from the great Pannonian plain. Let us turn our view there shortly. Opposite to Serbia, north of the Danube, we have a district once occupied by a section of the Obodriti. These Southern Obodriti are first mentioned by Eginhardt. On the destruction of the kingdom of the Avars by Charlemagne, peace was made between the Bulgarians and Franks, who by this destruction became close neighbours. But they were not many years before they quarrelled, and the cause of quarrel was that three Slavic tribes, who had been allies, and no doubt dependants of the Bulgarians, allied themselves with the Franks and entered their borders. These tribes were the *Obodriti*, the *Gudusciani*, and *Timociani*, the two latter tribes under their chief Bornas. This was in 818 (Eginhardt *Annales*, ad an.). These Obodriti were settled on the Danube, and gave its name to a large district or gau in Southern Hungary, known as Bacs-Bodrog, in Slavic Bodrocka stolice (Schafarik, ii, 208), so called probably from the indigenous name of the Obodriti, namely, Bodrizi. Schafarik suggests that a section of these Obodriti gave their name to Bodrok and the Bodrotschka, in the district of Zemplin. This was long ago suggested by D'Anville (Hampson's "Dissertation on Alfred's Orosius," 39), and has received the high sanction of Schafarik himself. This gau or Comitatus of Bacs Bodrog is bounded on the south and on the west roughly by the Danube, on the east by the Theiss, and on the north by the country of Pesth Solt. Schafarik, however, makes the Obodriti occupy a much wider district than the present country of Bacs Bodrog, and tells us they stretched from the junction of the Trave with the Danube, right across the Banat, and as far as the land of the Bulgarian Severani (*op. cit.*, ii, 208). These he makes their limits north of the Danube. South of that river he places them in that portion of Serbia which has only been Serbian in late mediæval times, and which is bounded on the west by the Serbian Morava, and on the east by the Timok. These limits are not improbable. They coincide north of the Danube with the Austrian province called Woïwodia, and south of the river with Eastern Serbia; the latter bounded on the north by the River Maros and the proper land of the Magyars; on the east by that of the Rumanians of Transylvania; and on the west by the Serbians of Slavonia and Sÿrmia. Under the year 824, we read in Eginhardt's *Annals* that envoys went to Louis the Pious from the

Obodriti, who were called Prædenecenti, and who were neighbours of the Bulgarians, who dwelt in Dacia, near the Danube (Zeuss, 614). D'Anville suggests that this name still survives in a canton of the Banat of Temeswar, named Pardan (Hampson, *loc. cit.*). Schafarik and Zeuss agree in identifying the mediæval Branitsshewo with this name. Branitsshewo was a town and principality on the south of the Danube. This town was called Viminacium by the Romans, and was situated on either bank of the River Mlawá, where it falls into the Danube a little east of the Morava, and where ruins still remain, those on one bank being called Mlawy Branicewac and those on the other Rostolac (Schafarik, ii, 209; Zeuss, 615). In the German accounts of the Crusades in the eleventh and twelfth centuries, the district from Belgrade to Nish, where Branitsshewo was situated, was styled Bulgaria or "Silva Bulgaria." On the conquest of Bulgaria by the Greeks in 1018, it fell into their power, and the town of Branitsshewo is mentioned by Theophylactos of Achrd in 1081, and by Anna Commena in 1114. In the first part of the twelfth century the town was subject to Hungary, but soon reverted again to the Greeks. In 1154 it was again conquered by the Hungarians. In 1172 it was visited by Henry the Lion, on his journey to Palestine, etc. It is probable that it was incorporated with Serbia about 1189, when Sofia, Semlin, Séltip, Nish, etc., were conquered by Nemanía. The Tzar Asan tells us that in his time it belonged to Bulgaria, but in 1275, in the reign of King Dragutin, it was certainly Serbian, and is often named until the Turkish conquest of 1459. It was the seat of a bishopric, and is styled Ducatus in old Byzantine and Hungarian authors. Its name still survives in popular memory, as in the song, "Po Kucewu e po Branicewu," and the district of Posharezk is still called Branitschewo (Schafarik, ii, 210).

Let us now turn to the two tribes who are mentioned as having deserted the Bulgarians jointly with the Obodriti. These were called Guduscáni and Timociáni. The former name is, according to Schafarik, the German form of the Slavic Kutshani, the inhabitants of Kucewo or Kucejewo, the district of the Kutshai Mountains, south-east of Branitsshewo. Kuc, Kuca, Kucáj, Kucaja, Kye or Kyca, mean mountains in the various Slavic tongues, and is perhaps the real meaning of Kauk in Kaukasus. There is also a Gacko called Gutzika by Constantine Porphyrogenitus, in Croatia. The mountains and district of Kutshai, south-east of Branitsshewo, are frequently mentioned in Serbian and Hungarian history in the twelfth to the fifteenth century; on these mountains was situated the village of Kucajn.

The Timociáni, it is agreed by Schafarik, Zeuss, and others,

simply mean the inhabitants of the Timok, on the frontier of the modern Serbia and Bulgaria. All this district was in the ninth century a part of Bulgaria.

The River Morava has two head streams which bi-fork near Warwarin; one of these is called the Serbian Morawa, and the other the Bulgarian Morawa. The Serbian Morawa has a very large tributary named the Ibar. The district between the Ibar and the Bulgarian Morawa, and that on either side of the Morawa itself till it falls into the Danube, was only added to Serbia by the victories of the Zupan Nemanja, who reigned from 1159–1195. In this district the dialect still differs from that of Serbia, as in saying “ny” for “nas, nam,” etc. (Schafarik, 212, note 2). The inhabitants of the whole district were probably included with those of Western Woiwodia in the generic name of Obodriti. These Obodriti were no doubt of the same race as the Northern tribe, as I have previously argued, and like them were not only close neighbours, but also near relatives of the Serbians, and formed in fact but fractions of the same stock. The importance of these Southern Obodriti may be gathered from the fact that the Bavarian geographer, who calls them Osterabtrezi, tells us they possessed more than 100 towns (Schafarik, *op. cit.*, ii, 208, note 3). We also find traces of the occupancy of Serbs proper, north of the Danube. A portion of the district of Little Wallachia was formerly known as the Banat of Krajova, and in earlier times as the Banatus Zevriensis (*see* Spruner’s maps, 75 and 89). In the thirteenth and fourteenth centuries this district was governed by a Ban of its own, who was at first subordinate to the Bulgarians, and later to the Hungarians. When Bela the Fourth of Hungary, at the instigation of the Pope, marched against the Bulgarians, he incorporated the Severian Land (“*terram Zemram, Zevram, or Zevrin*”) and created it a Bishopric. In 1237 he wished to make over this district (“*terra de Zevrino*”) to the Knights of St. John with the obligation of guarding it against the Tartars (Schafarik, ii, 203).

This arrangement was not carried out, and the district continued to be ruled by Hungarian Bans, some of whom are mentioned as early as the thirteenth century. Below the outfall of the Topolnitsa into the Danube there is still a village called Kimpul Sewerinuli by the Wallachians. Not far off is the village of Sewirineſt on the Kossum, which retains traces of a Serbian colony. We thus find that the Serbs and Obodriti once occupied the country north of the Danube, from below the Iron Gates to the Save. West of this we know, as I showed in a former paper, that the Croats once occupied the land between the Save and the Drave, and the border land of Slavonia. All

this points to the conclusion that when the Croats and Serbs invaded the borders of the Eastern Empire they came in from the north. Now it is equally clear that this district north of the Danube was in classical times occupied by an entirely different people, while we have express testimony that the Croats and Serbs came from White Croatia and White Serbia in the north. Let us now follow them there. On turning in the direction of the Carpathians we find almost directly north of the district of Woiwodia, and separated from it by the Great Hungarian Plain, a district watered by a river *Bodrog*, a large tributary of the Theiss. This river flows through the Hungarian county of Zemplin, and gives its name to the district of Bodrotschka; a little further west again we have in the county of Torna, the Bodra, a tributary of the Sayo. We have in these names a very close relationship with the name Obodriti or Bodrizi. The name Zemplin is nearly connected with that of Semlin on the Danube; the county of Torna with the canton Torontal in the Banat, and the River Topla with the Toplitz, a tributary of the Bulgarian Morawa, and I have small doubt that the Obodriti came from this part of the Carpathians, and migrated along the Valley of the Theiss.

In regard to the Serbs it may be that they came in by the same route, or it may be, as is perhaps more probable, that they followed the valley of the Danube, and entered Central Europe through the gap of tolerably flat country that separates Bohemia from Hungary, and therefore from Silesia. The two races came respectively, according to Constantine Porphyrogenitus, from White Croatia and White Serbia. Let us now try and realise rather more closely the meaning which the historian-emperor attached to these names. Speaking of the Croats before their advent on the borders of the empire he says they then lived beyond Bagibaria, where *are now* the Belo Chrobati; again he says: "The rest of the Chrobati dwelt towards Francia (*i.e.*, the land of the Franks) *and are called to this day* Belo Chrobati, or White Chrobati, and are subject to their own princes. They are, however, dependent on Otho the Great, King of Francia and Saxonia, and having been baptized they are in close alliance with the Turci" (*i.e.*, the Hungarians). Again, in another place he says: "The Chrobati who live in Dalmatia are derived from the baptized Chrobati who are called White, who live beyond Turcia (*i.e.*, Hungary), near to Francia, and are near the unbaptized Serbian Slaves" (Stritter. ii, 389 and 390). Constantine reigned from the year 945 to the year 959, and was a contemporary of Otho the Great. As we shall see presently, Otho the Great and his predecessor, Henry the Fowler, had after continuous fights with their Slavic neighbours entirely

subdued them. The bishoprics of Oldenburg, Havelberg, and Brandenburg were founded to convert them. The Slaves were everywhere subdued and converted to Christianity. They, however, retained their own princes, who were afterwards created margraves, and we may compare with Constantine's statement those of Widukind and the other German contemporary writers. "Baptizatus est totus populus. . . . Slavonia in XX pagos dispersita . . . pax fuit continua; Slavi sub tributo servierunt" (Schafarik, ii, 530, note 4).

Bagibaria or Bavaria then stretched eastwards as far as the Danube (*id.*, ii, 244), so that we can to some extent limit the problem of finding White Croatia. It was beyond Bavaria; it was included in the districts subdued and Christianized by the Saxon emperors; and it was beyond Hungary. In his translation of the history of Orosius, Alfred the Great, who wrote about half a century before Constantine, tells us that east of the Dalamensan lived the Horithi. Horithi has been generally accepted as a form of Croat. In the foundation charter of the bishopric of Prague there is mention made of two Chrovati, doubtless meaning two gaus of the name, as follows: "Novum antiquo fere ejusdem tenoris addit privilegium . . . primitiva illa parochia cum omni terminorum suorum ambitu . . . ad aquilonalem hii sunt termini: Psovane, Chrovati et altera Chrovati, Zlasane, Trebovane, etc." (Schafarik, ii, 444, note 2). I have already discussed these names. I am disposed to identify the White Croatia of Constantine and the Horithi of Alfred with Lusatia in its wider sense, and with Silesia. It is in conformity with this view that we actually find the people of these two districts called Serbs. Two villages on the Saale bear the name of Kerbetha, no doubt derived from these Northern Croats. The northern one, near Halle, is mentioned by Dithmar as Chruuati. The southern one, on the White Mountain, is named in the Chronicle of Halberstadt, published by Leibnitz, in the phrase, "ad transitum Sale in Curewate" (Zeuss, 608). So much for the situation of the Northern Croats.

Let us now examine their history more closely. It is generally supposed that the Croats and Serbs were summoned by Heraclius from the north of the Carpathians, but this is not only very improbable in itself—for it is hardly likely that an Emperor of Byzantium should have had direct intercourse with those regions—but it is not so stated by Constantine. He says of the Croats that, headed by five brothers, they left their own people and came to Dalmatia where they fought with the Avars, etc. (Sritter, ii, 389); and in another place he says, "they fled to the Emperor Heraclius before the Serbi fled to him" (*id.* 393); and again of the Serbians he tells us how a strife

having arisen between two sons of their king, one of them with his people fled to the Roman Emperor Heraclius" (*id.*, 151). It was after they had arrived on his borders that he incited the Croats to attack and drive out the Avars, and gave them their land (*id.*, 394). We must therefore consider them as fugitives from their own country. I may add that one branch of the Croats, together with the kindred tribes of the Stoderani and the Suselzi, made their way to Carinthia and occupied a district on the Mur between the towns of Knittelfeld and Leoben, where a place called Kraubat still recalls their name. The district they occupied was known in the middle ages as the "Pagus Crauati," and is so called in a deed of Henry the First,* dated in 954. In another of Otho the Second of 978, it is called Chrouat, and in a Salzburg deed of the eleventh century we read of "prædiae . . . Chrouata et Runa" (Schafarik, ii, 337, note 5). Near the village of Windischgarsten, in the mountain range separating Steiermark and Upper Austria, we have a place called Hither and Further Stoder, while in the Krainian Alps, near Terglu, is a valley of Stoder, doubtless so called from the Stoderani. In Salzburg documents of 970 and 1045, we read of a wood called Susil or Sousal, situated on the River Lonsnitz in Lower Steiermark, a district still called Sausal; we also have a place called Ziusila, probably a corruption of Zuisila on the River Ipusa in Austria. These names are doubtless connected with the Syssele whom we have already described. (*Id.*, 337 and 338.)

I would remark that the Croats at present living in Moravia, in the territory of Lundenburg, and in Austria in the districts of Walcziz and Rabensburg, are emigrants from the Trans-Danubian Croatia, who first settled in their present quarters in the last century. (*Id.*, 500.)

We must therefore look upon the Northern Serbs at the beginning of the seventh century as occupying a continuous area from the Elbe along the northern borders of Bohemia and Hungary to the Pruth. What took place in Silesia and Lusatia took place in another district. It would seem to be almost certain that at the same period a similar series of Slavic tribes occupied the country between the Elbe and the Oder from Dresden to the sea, tribes closely related, and Serbian in blood. As the Poles made a gap in the continuity of the Serbs in Silesia, so a Polish race, the Wiltzi, found its way westwards to the middle Elbe, and thrust back this early Serbian colony until it consisted eventually but of a narrow strip along the right bank of the river with a large mass at its northern end

* This must be meant for Otho the First, or the Great, 936-973. Henry the Fowler reigned 918-936.

forming the northern Obodritan kingdom; so that it would appear that at this date the Polish stock was bounded and cushioned round on the west and south by a layer of Serbian tribes which separated it on the one hand from the Germans, and on the other from the mixed races of Bohemia and Pannonia.

Our next inquiry is to discover whether this wide and continuous area had been occupied by Serbs from a very early date. We shall have no difficulty in concluding that in its western part at all events this was not so, but that the Serbs here were intruders.

There can be no doubt that the various Slavic tribes who occupied the right bank of the Elbe in the time of Charlemagne were intruders there, and were not indigenous. The classical writers have left us ample details about this district, but nowhere do the chief Slavic divisions, nor those of their constituent tribes, occur in their pages. This area they describe as in part occupied by a very different race—by Lombards, and Varini, and Angles, and Vandals, and Marcomians—all no doubt Teutonic tribes belonging to the great Swevic or Suabian stock, and these writers enable us to trace the migration of these various tribes from this their motherland.

It was only after they had migrated that these Slaves came in, the most westerly Slaves before the migration having been the Wiltzi, who in the time of Ptolemy lived on the Oder. At that time, therefore, the Germans were in immediate contact with tribes of the Polish stock. The intruders as I have said belonged to the eastern section of the Slaves, and not to the Polish section, and were at constant feud with the older Slavic occupants of the Oder, which is in itself tolerable evidence that they were intrusive strangers. Whence did they come? Clearly not from the west, which was a purely German area, nor from the north, which was Scandinavian, nor from the east, which was occupied by their mortal enemies the Wiltzi and other Polish Slaves. There remains, therefore, but the south, and I have no hesitation in saying they followed the course of the Elbe.

The next question is, When these Slaves invaded the Valley of the Elbe? This is complicated with another element. I have already suggested in the previous paper of this series that the Serbs were led by a caste of a foreign race, probably Hunnic or Alanic, and I remitted the consideration of the question to a future paper. We may now devote a short time to it. It is a very remarkable fact, *in limine*, that the Serbian dialect should have several words in it of Finnic origin as: Finnic, *suggo*, *suggu* (genus, cognatio). Serb, *sukun*—*djed* (atavus), *sukun*—*baba* (atavia). Finnic *katk* (pestis), Serb *kuga*, Polabian *koghe*, in

the Mecklenburg dialect koghe. Finnic pehle (anas, dom), Serb pile (pullus gall). Finnic pahhast (pravus), pahharet (diabolus), Serb pakostan pakost, etc. etc. (Schafarik, ii, 246 and 247.) It seems to me that this Finnic element can have no other origin than from the Huns, who probably led the race.

Again, it has almost universally been held that the name Croat is derived from Khrebet, a mountain chain, and is connected with that of Carpathian, and this was the view which, following Schafarik and others, I adopted in my paper on the Croats, but I am by no means so well assured of this view now. The name, if it were even a merely geographical one, would apply equally well to the Slovaks and the Northern Serbs as to the Croats; and it does not seem probable that one out of a series of mountain tribes should call itself "mountaineers;" on the other hand that a tribe should call itself from some noted leader is a very common occurrence, and the name Chrobat was certainly used as a personal name. One of the five brothers who led the Croats southwards was so called; but, what is much more important, the first great chief of the Bulgarians, who were Huns under another name, was called Chrobat, and it was under his sons that the Bulgarians separated into various sections and were scattered. It would seem, therefore, that Chrobat was a Hunnic name, and it is not improbable that the Croats were so called from some Hunnic chief named Chrobat. The names Bodrog, Ceadrag, Anatrog, etc., chieftains of the Polabian Slaves, have a very Bulgarian and Hunnic appearance. The name Derwan, which occurs as that of a Sorabian chief, in 630 is according to Schafarik not Slavic (*op. cit.*, ii, 513), and may be Hunnic. I may add, however, that Zeuss compares it with the Slavic name Derewliani, a well-known Russian tribe mentioned by Nestor, and the Derbleninoi of Constantine Porphyrogenitus, both names having an "l" in their composition like the forms Serbli or Sorabli of Serb (*op. cit.*, 643). Beda calls the Slaves Huns, which the Saxon, Danish, and Scandinavian writers frequently do, and which is doubtless to be explained by the fact that the Slaves were generally the subjects of the Huns. He tells us that the priest Egbert converted the Frissones, Rugini, Dani, Huni, old Saxons, and Boruchtuarii, that is the various tribes of Northern Germany. Here, as Schafarik argues, the mention of the Huns with the other tribes shows that by them the Slaves are meant, since there were no Huns proper in Northern Germany.

I would explain in this way a curious statement of Adam of Bremen, who in describing the marriage of the Slave chief Meshnoi with the niece of Duke Bernard, calls him a dog. Now the German for dog is hund, which is very like Hun.

Thus we understand Helmold when he says, "Saxonum voce, Slavi canes vocantur." This is like the old chronicler who calls the Great *Khan* of Tartary, *Magnus Canis* or the Great Dog.

Again, there is a tribe of Serbs whose name occurs in various districts, which is interesting in this discussion. This is the tribe of the Syssele or Siusli to which I have already referred. It has been argued that the name of this tribe is the same as that called Szekelyek or Szekely by the Hungarians, the well-known Seklers of Transylvania. This tribe, which speaks the Hungarian language, is essentially a part of the Hungarian nation. It occurs in mediæval history under the form Siculi. The Siculi are considered by the Hungarian chroniclers to be descendants of Attila's Huns; thus the notary of King Bala writes of them: "Siculi qui primo erant populi Athelæ regis (Zeuss, 756), tria millia virorum, eadem de natione (Hunorum), . . . metuentes ad Erdewelwe confinia videlicet et Pannonicæ regiones se transtulere, et non Hunos sive Hungaros, sed in illorum agnoscerentur esse residui, Siculos, ipsorum autem vocabulo Zekel, se denominasse perhibentur. Hi Siculi Hunorum prima fronte in Pannoniam intrantium etiam hac nostra tempestate residui esse dubitantur per neminem cum in ipsorum generatione, extraneo nondum permixta sanguine, et in moribus severiores et in divisione agri ceteris Hungaris multum differe videantur" (Throrocz ap Schwantn, 78; Zeuss, 756). Simon Keza calls them Zaculi, *i.e.*, Sakuli, and Schafarik connects with this form of the word, the Serbian names of Sekula and Sekulit (Schafarik, ii, 204). It seems exceedingly probable that these Szekely gave their name to the Syssele or Siusli, who are found so widely scattered from Wend Syssel in the north of Denmark to Susola in Russia, and if so we have another piece of evidence to show that the Serbs were led by a caste of Huns. Again, it is very curious that the Western Slaves should be so often referred to as Huns. I have pointed out that those settled in the Swiss valleys are so called, but what is more important in our present discussion is that the Slaves of the Elbe were actually known as Huns (Schafarik, 512). And it was probably from this fact that we meet with the name Hun so frequently in the folklore of Germany and the Norse countries. I hope to revert to this question when we come to deal with the Pannonian Slaves in a future paper. Meanwhile, I would urge that the Northern Serbs and Croats occupied the Valley of the Elbe under the leadership of Huns or Avares. When the flat country east of that river was abandoned by the various Teutonic tribes of Lombards, Angles, Varini, and by the Vandals, these Slaves who had been conquered by the Huns migrated into the vacant lands, and thus occupied them. This was probably

during the sixth century after Christ. They thus thrust themselves in between the Poles and the Germans, and their country became a veritable Mark or March, a name which was in fact applied to several of its districts, as Uckermark, the Mark of Brandenburg, etc. Let us now collect the scattered fragments of their history which have survived, and begin with the Obodriti.

The Obodriti first appear in history in the pages of the Frankish chroniclers of the eighth century. Charlemagne was brought into contact with them in his Saxon wars, and we are told that in 780, after the fierce struggle with the Saxons which had lasted since 772, he went to where the Ohre falls into the Elbe, where he arranged the affairs of the Saxons and of the Slaves beyond the Elbe (Eginhardt Annals, Pertz, i, 160). The *Annales Lauresh.* say that in this year a great number of Winidi were converted to the faith (Pertz, i, 31). By these Slaves and Wends no doubt the Obodriti are meant, and the *Chron. Mur.* expressly says the Obodriti were converted in this year (Schafarik, ii, 577, note 1).

In 789 Charlemagne was once more in this district, and marched to subdue the Wiltzi. He had to traverse the country of the Obodriti, who were no doubt his allies (*Ann. Lauresh.* Pertz, i, 34; *Ann. Lauris., id.*, 119 and 174; and Eginhardt's, *id.*, 175). The Wiltzi were subdued and made tributary, and gave hostages. On this occasion the Suurbi and the Obodriti, whose prince was Witzan, were in alliance with him (*Ann. Lauris.* Pertz, i, 174). When in 793 Karl was absent on his Spanish campaign, the Saxons again broke out into revolt. During this strife it seems that Wiltzan or Witzan, the chief of the Obodriti, went across the Elbe, probably to assist the Frank kaizer, when he was waylaid in an ambush by the Saxons in the town of Hliuni, *i.e.*, Lune, near Luneburgh, close to the Elbe, and was killed by them (*Ann. Lauresh.* Pertz, i, 36; Eginhardt, *id.*, 181).

Charles, who in 795 was at Bardenwik, near Luneburgh, ravaged the country of the Saxons, who had thus killed his ally. They were apparently the Trans-Albingians (*Ann. Lauresh.* Pertz, i, 37). In 798, we are told in the annals last cited, that "our Slaves, who are called Obodriti, united themselves with the Frank Emperor's 'Missi,' and marched against the Trans-Albingian Saxons, whom they defeated in a fight, in which the Saxons lost 2,901 men. After their victory they went to Charles in Thuringia, who lauded them for what they had done" (Pertz, i, 37). The Annals of Eginhardt say that the Saxons were the aggressors, adding the phrase, "for the Obodriti were always the allies of the Franks." The chief of the Obodriti on this occasion,

we are told, was Thrasco or Drasco, and the fight took place at Suentana (*i.e.*, Swante in the district of Schwan on the Warnof). This author says 4,000 of the Saxons fell, as was reported by Eburis, who was present at the fight. Being thus beaten they returned home again (Eginhardt, Pertz, i, 185). The following year the emperor sent his son Charles to settle the matters of the Wiltzi and the Obodriti, that is doubtless to create a better feeling between those tribes (Eginhardt, *id.*, 187). In 804, the Emperor, weary with the constant outbreaks of the Trans-Albingian Saxons, determined to transplant them within his own borders. We are told by Eginhardt that he so transplanted all the Saxons living beyond the Elbe, and those living in Wigmodia, south of that river, and gave their land to the Obodriti (Pertz, i, 191-2). The Chron. Moissiac. says that Charles, having gone to Oldonostath, *i.e.*, Oldstede on the Alster, sent his troops, which transported all the Saxons in the districts of Wigmodia, Hosingabi, and Rosagabi, as well as those living beyond the Elbe (Pertz, i, 307). Wigmodia was so called from the River Wimme, and Hosingabi from the River Oste; they were large districts on the left bank of the Lower Elbe, comprised in the diocese of Bremen. Rosogavi was apparently situated in the same district and also on the left bank of the Elbe. Kruse argues that the castle and monastery of Rosenfeld near Stade derive their name from it (Chron. Norm., 39). He also argues against the likelihood of a transportation from the districts south of the Elbe, but I confess the statements of Eginhardt and of the Chron. Moissiac, which at this particular date are of singular weight and authority, seem to me to be overwhelming, and that it is probable that by this transportation, Holstein, with a large part of the district between the Lower Weser and the Lower Elbe, were denuded of their Saxon population altogether, and given over to the Obodriti. This is partially confirmed in other ways: thus the name of the Duchy of Lauenburgh is apparently connected with the Linai, and of this district we have a curious mention in Eginhardt's Annals under the year 822, where we are told that by order of the emperor the Saxons built a fortress across the Elbe at Delbende. *The Slaves who lived there and occupied it previously were driven away*, and a Saxon garrison put there against their incursions (Pertz, i, 209). The Delvunda, adds Pertz, is the modern Stecknitz in the Duchy of Lauenburg. He argues that the fortress so built was situated near Mollen, and that from this plantation the district from Mollen to the Elbe received the name of "der Sachsenwald," which it bears to this day (*id.*). In a paper on the Saxons of Old Saxony, which I had the honour of reading before the Society, I argued from other considerations that the present inhabitants of Holstein are descended

from immigrants from Saxony south of the Elbe, and not from the old indigenous Saxons of the district. This all goes to show that the people of Trans-Albingia were in fact transported bodily by Charlemagne, and for a time at least their lands occupied by the Obodriti. The same year in which this transportation took place various Slavic chiefs came to the Emperor at Holdanstadt, asking him to settle their differences. He appointed Thrasco as their head (*Chron. Moissiac. Pertz, i, 307; Ann. Laur., id., i, 191; Ann. Metenses; Kruse, 41*). To prevent further mischief, it would seem from the capitularies that Charlemagne forbade the merchants from selling weapons to the Slaves. He also appointed governors to their frontier towns. The institution of Margraves or Marquises did not take place till a later date (*Schafarik, ii, 519, note*).

In 808, the famous Danish King Godfred marched against the Obodriti. He captured several of their fortresses. Drasco was driven away, and Godelaib, another chief, captured by stealth, was hanged; and both divisions of the Obodriti were made tributary to the Danes. Godfred did not win his way without serious loss. We are told several of his principal people were killed, as well as Reginold, his brother's son. Charlemagne, meanwhile, despatched his son Charles across the Elbe against the Linones and Smeldingi, who had sided with the Danes, and having punished them, he returned across the river. The Danes were joined by the Wiltzi who, we are told, on account of their ancient feuds with the Obodriti, had of their own accord joined the Danes, and returned home safely with a large booty. Godfred destroyed Reric, the chief emporium of the Obodriti, exacted a large tribute from it, and carried off its merchants (*Eginhardt; Pertz, i, 195; Chron. Moiss., id., 258*). The Emperor ordered two fortresses to be built on the Elbe to overawe the Slaves. It was from this Reric that the Obodriti were also called Reregi, "Obodriti qui nunc Reregi vocantur," as Adam of Bremen says.

In 809 Thrasco, who had had to give his son as a hostage to Godfred, having been joined by some Saxons, wasted the lands of his neighbours the Wiltzi, and returned home with a large booty; and afterwards again, with the help of the Saxons, marched against the Smeldingi, who had gone over to the Danes, as I have mentioned, and captured their chief town of Connoburg, but shortly after he was killed by the Danes by treachery at Reric (*Eginhardt Annals, Pertz i, 196-197; Chron. Moiss., Pertz i, 309; id., ii, 258*).

In 810, the fortress of Holibuokhi on the Elbe, no doubt in the country of the Linones, was captured by the Wiltzi (*Eginhardt Annals, i, 197-198*). The following year the Emperor sent

his son Charles across the river, who wasted the lands of the Lanai or Linones and Bethenici, and rebuilt Holbuokhi (Chron. Moiss., Pertz, i, 309). In 814 Charlemagne died. His biographer, Eginhardt, says: "the old hero had made tributary all the tribes between the Rhine and the Vistula: the Welatabi or Wiltzi, Sorabi, Obodriti, and Boemanni." Schafarik thinks this an exaggeration, but I confess it seems in unison with the statements of the Chroniclers. It does not mean that these tribes ceased to be governed by their own chiefs, but that they were dependant and tributary on the great Kaizer. In the year 815, Harald, the Danish King, the *protégé* of the Frank Emperor, returned home, and we are told the Saxons and Obodriti were ordered to march to assist him, and they accordingly advanced beyond the Eider, and having ravaged the country, retired again (Eginhardt Annals, Pertz, i, 202). During the same year, Louis held a convention at Paderborn, where envoys went to him from all the Eastern Slaves (*id.*). In 817 a fresh disturbance arose among the Obodriti. We are told that after the death of Thrasco, Slaomir, who had succeeded him, and who was probably his brother, was ordered by the Franks to divide his heritage with Ceadrag, Thrasco's son. This annoyed him so much that he declared he would never cross the Elbe again, nor repair to the Imperial palace. On the other hand, he sent envoys to the sons of Godfred, the Danish King, who were at issue with the Franks, and asked them to send an army into Saxony beyond the Elbe.

They accordingly went and laid waste the country on the banks of the Stur, while the Obodriti repaired to Esesfelth and attacked it; but the place being bravely defended, they retired (Eginhardt Annals, i, 203-4). The next year Slaomir was captured, and was taken to the Emperor at Aachen by the prefects of the Saxon March and the legates. Being accused of many crimes by the Obodritan chiefs, he was exiled, and Ceadrag was given the kingdom (*id.*, Pertz, i, 205). In 821 Ceadrag having proved unfaithful and having entered into some conspiracy with the Danish princes, the sons of Godfred, Slaomir was sent back again, but when he arrived in Saxony he fell ill, and having been baptized, died (*id.*, Pertz, i, 207-208). The following year the Emperor held a convention at Frankfort, where all the Eastern Slaves, *i.e.*, the Obodriti, Sorabi, Wiltzi, Beheimi, Marvani, Prædenecenti, and the Avars of Pannonia, sent envoys with presents (Eginhardt Annals, Pertz, i, 209). In the spring of 823, the annual May meeting took place at Frankfort, and Ceadrag was there accused of treachery; messengers were sent to him and he accordingly sent some envoys to make his peace with the Emperor, and promised to go in person in the

autumn. The autumn meeting was held at Compiègne, and Ceadrag with some of his people went there as he had promised. He was reproved, but on account of his parents' good character was allowed to return again (*id.*, 211). In 828 fresh complaints were made against Ceadrag at the Imperial May meeting at Ingelheim. He was ordered to appear at the October meeting and having gone there was detained. Meanwhile, messengers were sent to inquire among the Obodriti whether they wished to have him back or not. They reported that opinion was divided on this question, but that the more respectable and important chiefs wished him to go back. He was accordingly sent back again. (*Id.*, 215.)

During the strife between Louis and his sons, the Slaves were apparently unmolested by the Franks, and we do not meet with them in the Annalists for some years. In 839 a Saxon army was sent against the Linones who had fallen away from their allegiance, while another was sent against the Wiltzi and Sorabians (Schafarik, ii, 522). By the Treaty of Verdun, made in 843, the Polabian Slaves fell to Louis the German. This was apparently deemed a good opportunity for revolt, and we are told the Obodriti accordingly rebelled in 844, but they were repressed, and their leader Gotzomysl was killed (*id.*, 523). In 845 Slavic envoys went to Louis at Paderborn. The defeat just mentioned seems to have pacified the Obodriti for a few years, and it was not till 858 that Louis sent his son Louis against the Obodriti and Linones.

In 862 Louis himself led an army against the Obodriti, and compelled their chief Dabomysl (Schafarik suggests Daba, Dabisa, or Dabizif) to submit and give up his son and others as hostages (Fulda, "Annals," *id.*, 374). Hincmar says the expedition was not successful, and that Louis returned to Frankfort after losing several of his principal men (*id.*, 458). Louis the Second, about the year 877, exacted tribute from the Linones and Siusli (Schafarik, ii, 524). We do not read of the Obodriti again till 889, when Arnulph, the famous German king, marched against them. The expedition was not successful, and the army returned after effecting nothing (Fulda, "Annals:" Pertz, i, 406-7). The Obodriti apparently now regained their freedom and remained independent till the time of Henry the First (Schafarik, ii, 525). It was probably in the year 927 when they were again subdued, and we find them named by Widukind with the Wiltzi, Hevelli and Redarii as made tributary by Henry (Schafarik, ii, 523, note 4). Some time after, Henry punished the Danes severely, and created a Margraviate of Schleswig. This so terrified the Obodriti that they at length, about the year 932, consented to become

Christians (*id.*, 527). Henry died in 936, and was succeeded by his son Otho the Great, who determined to overcome the Polabian Slaves with the sword and the Cross. The campaign began unluckily in 939 with an attack made by the Obodriti on the German Margrave, whose army was defeated and he himself killed. The Annalist gives a singularly graphic description of the Obodriti, which I will quote in the original:—

“*Illi (i.e., the Obodriti) vero nihilominus bellum quam pacem elegerunt, omnem miseriam caræ libertati postponentes. Est namque hujusmodi genus hominum durum et laboris patiens, victu levissimo assuetum, et quod nostris gravi onere esse solet, Sclavi pro quadam voluptæ deducunt*” (Widukind, ii; Schafarik, ii, 528, note 1).

The Margrave Gero, to revenge the defeat just named, invited thirty Slave chiefs to a banquet, where all except one, who accidentally escaped, were murdered. This horrible crime led the Stodorani to take up arms. They were joined by the other Slavic tribes, and the Germans were driven beyond the Elbe. When Otho heard of this, he hastened to Magdeburgh; but the crafty Gero had already pacified the storm. He had won over by presents and promises Tugumir, a Slavic prince who was well disposed towards the Germans, and who had been baptized, to betray his own countrymen. He returned home and pretended to have broken with the Germans, and was believed by his people, who made him their chief. He then took the opportunity to kill his nephew, the prince who had escaped when the other twenty-nine were massacred, and declared his country to be subject to the German king. This was followed by the unwilling submission of the Obodriti and Wiltzi (Schafarik, ii, 528). During the 14 years that followed, Otho founded the bishoprics of Oldenburgh (Stargard) in Wagrien, Havelberg (in 946), and Brandenburg (in 949) for the conversion of the Slaves. This policy was not immediately successful. During the absence of Otho and of Gero, tho Ūkrani took up arms. This was in 954. The revolt was speedily quelled by Gero, and the Duke Conrad. Next year the rebellious Saxon Counts, Wichman and Egbert, were driven out of Saxony by Hermann Billung. They fled to the Obodritan princes Nakon and Stoinegin, who were unfriendly to the Germans, and who were in the town of Swetlastrana, whose site is not known. They persuaded them to oppose the Saxon duke Hermann. The latter retired from Swetlastrana after a slight skirmish, and even agreed to surrender Kokareszem to the enemy. As the Germans were retiring from the town, a brawl arose between them and the Slaves, in which the latter, unmindful of the agreement, killed several of them, and carried off the women

and children. Otho marched in all haste to the rescue with his son Liutolf and the Margrave Gero. Meanwhile, the Obodriti, Wiltzi, Chrepienyani, Dolenzi, and Redarii had banded themselves together under the command of Stoinnegin. Pourparlers ensued. The Obodriti were willing to pay tribute, but objected to the Germans mixing in their internal affairs, to their land being divided out into German "gaus," and to German officers being appointed as counts of the "gaus," but Otho was inexorable, and a bloody battle was accordingly fought on the River Dosa, in which the Slaves were defeated. Stoinnegin and a great number of Slaves fell in the battle, and Wichman and Egbert went to King Hugh in France.

In this battle the Rani, or people of Rugen, sided with the Germans. Otho again fought with the Redarii in 957, and as Wichman afterwards took refuge with the latter and the Stodorani, the war lasted till 980. The Slaves at length consented to be baptized, and to have churches and monasteries built among them. They retained their own princes, but the land was divided into gaus, and Margraves were appointed as overseers, who had a joint authority with the princes (Schafarik, ii, 529-530).

On the death of the Margrave Gero in 965, fresh disturbances arose on the frontier. The Saxon Duke Hermann Billung having interfered as arbitrator in a quarrel between the Obodritan chief Mestiivi (? Metislaf) and Zelibor, Prince of the Wagrians, and decided against the latter, he took up arms and persuaded Wichman to join him. He was besieged in his capital, however, made prisoner and foiled. Wichman fled to the Wolini, at the mouth of the Oder, began a struggle with the Poles, and there lost his life in 967.

Under Otho the Second the strivings of the Slaves after independence were kept alive by the tyrannical conduct of the Margraves. In 976 the Emperor had to march in person against the Wiltzi, but without much effect. The same cause tended to retard the spread of Christianity. This was especially the case among the Obodriti, where although the old Prince Mestivoi was a Christian, and had in 973 married the sister of Wago, Bishop of Stargard, yet incited by his son Michislaf who was inclined to Heathenism, and by his own inclination, he put away his wife, plundered the property of his brother-in-law the bishop, and persecuted the Christians. Mestivoi is called Billung by Helmold. He took this name on his baptism, being so called after the Saxon Duke Hermann Billung (Schafarik, ii, 531, and note 7).

On the news of the Frankish defeat at Basentella reaching the Slaves, they broke out into revolt. The avarice and cruelty

of the Margrave Theoderic are stigmatized by the Chroniclers as a chief cause of their disaffection. In 983 the Obodriti marched on Hamburg, and the Wiltzi on Havelberg and Brandenburg. They burnt the churches and bishops' dwellings there, and killed or drove out the Germans, and even threatened Saxony.

In 996 Otho the Third agreed to a truce with the Obodriti and Wiltzi, by which the former bound themselves to adopt Christianity. So great was the opposition to this faith, which was doubtless then very Erastian, that the Obodriti had driven out their chief Mestivoi, because he was a Christian. By the treaty this Slavic tribe secured its full freedom, except apparently the payment of a certain tribute (Schafarik, ii, 532). They were only quiet a very short time, for the very next year we find them overrunning the land of the Stodorani and of Brandenburg, and making incursions into Saxony. On the death of Otho the Third and before his successor Henry the Second was everywhere acknowledged, the pressure of the Frank border-commanders aroused a fresh outbreak among the Obodriti, under their chiefs Michislaf and Mestivoi the Second, in which they showed unusual energy. Christianity was trampled out, and the priests slaughtered, and tribute and service were withheld from the Emperor. This was in 1002. After the accession of Henry the Second, and when he was at war with Boleslaf of Poland, he made overtures to the Obodriti and Wiltzi. The former agreed to acknowledge his suzerainty, and to pay tribute, while the question of their again adopting Christianity was left over. The Wiltzi merely agreed to send a contingent to help the Emperor in his wars. This was in 1003, and afterwards the latter were faithful allies of the Franks in their Polish wars. In 1018 strife arose between the Obodriti and the Wiltzi in consequence of the refusal of the Obodritan chief Michislaf to render assistance to the latter against the Poles, which led to the Wiltzi being severely beaten, but this was a mere passing phase. We soon find the Obodriti, Wagrians, and Wiltzi driven to rebellion by the exactions of the Margrave Bernhard, and banishing the priests whom they had imprisoned at Schwerin, and largely reverting to paganism. Neither Henry nor the Saxon Duke Bernhard could make much way with them, and we are told that in 1022 the Emperor tried to persuade the leaders of these tribes (who had apparently meanwhile submitted) to pay tithes, but in vain, and the Bishop of Stargard retired in consequence or a lack of income to Hildesheim (Schafarik, ii, 534). Henry was succeeded by Conrad the Second. He allowed the Saxons to ill-use the Wiltzi, who thereupon went over to the Poles.

On the death of Michislaf, the ruler of the Obodriti, several princes succeeded to his heritage, of whom Anatrog favoured the heathens and Pribignief or Udo, Michislaf's son, the Christians. Two other Obodritan princes, Sederich and Ratibor, are also mentioned at this time. Pribignief or Udo was killed by a Saxon in 1031, whereupon his son, Gottschalk, whose mother was a daughter of the Danish King, and who had himself been brought up in a monastery at Luneburg, fell away from Christianity and fought with his Obodriti against the Germans, and afterwards went to live among the Danes, in whose service he fought for 11 years. On Gottschalk's departure, Ratibor seized the throne, but fell in 1042 with his eight sons in fighting against the Danes. Gottschalk was now reinstated with the help of the Danes. He encouraged the Christians, built churches and monasteries, and oppressed the heathens. Two new bishoprics were founded in 1051 at Ratibor and Rerig.

Grave discontent arose, however, in consequence of these changes, and Gottschalk was murdered at Lentschin, on the 7th of June, 1066. The bishops, the monks, and other Christians were slaughtered, churches and monasteries were overthrown, Gottschalk's widow, with his sons, Buthue and Henry, were sent back to Denmark. The leader of this outbreak was Pluso, Gottschalk's brother-in-law. A terrible struggle now ensued between the Obodriti and the Germans: the former ravaged Holstein and destroyed the town of Hamburg, and for 12 years the Duke Ordulf fought in vain against the Slaves, and was constantly beaten. Buthue, Gottschalk's son, tried in vain to secure the throne: he was killed in 1071. The Obodriti wished to be ruled by Kruko, a famous chief of the Rugians, to whom the Wiltzi had, in 1070, submitted. He reigned from 1066–1105, fought bravely against both the Germans and the Danes, and conquered Holstein.

During his reign the Isle of Rugen acquired a fresh importance among the Slaves and became the chief focus of their religion, but his rule was not undisturbed. In 1093 the Saxon Duke Magnus invaded the land of the Slaves and captured 14 towns, while on another side the Danish King Eric, as the patron of Gottschalk's son Henry, invaded the country and made both Wolin and Rugen tributary. Soon after Henry himself landed on the coasts of Wagria, the Obodriti plundered the towns on the coast and forced the aged Kruko to surrender Plön and its neighbourhood to him. In 1105, he, in concert with Kruko's young wife Slavina, killed the old hero at a banquet near Plön, conquered the neighbouring towns in the districts of Wagria and Ratibor, put himself under the protection of the Duke of Saxony, and resigned Holstein to the Danes. On hear-

ing of this disgraceful proceeding, the Obodriti, together with the Kyshani and other tribes of the Wiltzi, took up arms, but they were defeated at Smilowopol (*i.e.* Binsfeld) by Duke Magnus. This was in 1105, and Henry, who was then at Lubeck, was proclaimed King. The Slaves as far as beyond the Oder, and even the Pomorani, were subject to him, but this did not last long.

In 1107 the Obodriti and Wiltzi rebelled, while the Wagrians remained faithful, and in the following years the Wiltzi again won their complete independence and are found under their own princes. Henry died in 1126, leaving two sons, Swatopluk and Kanute, who fought for supremacy, but the latter having died in 1127, Swatopluk remained sole ruler from 1127-1129, and overcame the Obodriti and the Kyshani. Thereby he aroused the opposition of the Rani, who in 1128 destroyed his town of Lubek (Bukowec). Soon after, he was killed with his son Zwenik or Zwenko. On the extinction of the family of Gottschalk, the Danish Prince Knut Laiward raised pretensions to the sceptre of the Slaves, which were acknowledged by Lothaire of Saxony. He determined to subject the Obodritan princes Prebislaf and his grandson, Niklot, but meanwhile as he was preparing for a more ambitious venture against the Wiltzi and Pomorani he was killed by Magnus, the King of Gotland, in 1131. He was succeeded by Pribislaaf and Niklot, who strove with all their might for the preservation of the old faith and the old customs. They were not long at peace, but had to struggle against powerful neighbours. Niklot died heroically in 1160, fighting against Henry the Lion, and with him fell the last prop of the Slaves in these districts.

Let us now turn to the Sorabians, and track out their story. Fredegar is the first author who mentions these Northern Serbs. In describing the struggle of the Eastern Franks with the famous Bohemian hero, Samo, who first freed his country from the yoke of the Avars, he tells us that after the battle of Wogast in which the Franks were so badly beaten and which was fought in the year 630, many of the Winidi made an irruption into the Frankish borders, and he tells us further that Dervan, the leader of the Surbian race, which was of the stock of the Slaves, and was formerly subject to the Franks, submitted with his kingdom to Samo (Fredegar ed. Guizot, ii, 226). Thunmann, Gebhard, and others have looked upon these Serbians as the inhabitants of Lusatia, which I think is probable. Schafarik argues that this could not be, because it is said they were subject to the Franks, who had no authority in Lusatia, and he argues that Dervan ruled in the later Serbian district between the Saale and the Elbe. Our authorities are so exceedingly

scanty for the history of the sixth and seventh centuries in these parts that we really do not know how far east the Franks had authority before the campaign of Samo, and I am disposed to think that they were accepted as suzerains to a considerable distance beyond the Elbe, which would explain the statement of Constantine Porphyrogenitus that White Croatia bordered on the Franks; and we have the positive statement of Vibius Sequester, who wrote in the sixth century, to the effect that the Suevi and the Servitii or Serbs were separated by the Elbe, he says: "Albis Germaniæ Suevos a Servitiis dividit mergitur in Oceanum." Here is no mention of the Saale. The same conclusion follows from the accounts of the attack of the Avars on the Franks in 562, where we read that the Frankish territory then extended to the Elbe (Schafarik, ii, 510). It is true that the Serbians had reached the Saale in the end of the eighth century, but it is far more probable that in the seventh they were bounded on the west by the Elbe, as Vibius Sequester says. They perhaps crossed the Elbe as settlers after the Avarian invasion of 562-563. Eginhardt, writing of the year 782, speaks of the Saale as then dividing the Thuringians and the Sorabi, and tells us the latter lived between the Saale and the Elbe, and in 782 made an incursion into the borders of the Thuringians and Saxons, who were their neighbours. The Serbians in fact now occupied a large district on both sides of the Middle Elbe. I will now trace out the history of these Serbs.

In 782 we are told by Eginhardt that news was taken to the Emperor that the Sorabian Slaves, who lived between the Elbe and the Saale, had entered the land of the Thuringians and Saxons which bordered on them, for purposes of plunder, and had laid waste several districts. He thereupon sent Adalgisus, his chamberlain, and Gailo, the master of the horse, and Worad, the count-palatine, with some Franks and Saxons to punish them. When these commanders entered the borders of Saxony they found that the Saxons had been incited to rebel again by Widukind: they accordingly turned aside against the latter (Eginhardt Annals, Pertz, i, 163; Ann. Laur. *id.*, i, 162). In 789, when Charlemagne marched against the Wiltzi, we are told that there went with him some of the Slavi called Suurbi, as well as the Obodriti under their chief, Witzan (Ann. Laur. Pertz, i, 174).

In 805 Charlemagne sent a large army to lay waste Bohemia. This army was divided into four divisions, one of these marched through the districts of Werinofelda (*vide supra*) and Demelchion (*i.e.* the Gau of the Daleminzi). Semela, who ruled there, was defeated and gave his two sons as hostages. After this, this division went to Fergunna, a "gau" on the river Eger in Bohemia (Schafarik, ii, 606). Having been joined by other

troops, they devastated the district of Camburgh on the Elbe. Another army went to Magdeburg and pillaged the gau of Genewara (Chron. Moiss., Pertz, i, 308).

The next year Charlemagne again sent his son Charles against these Slaves of the Upper Elbe. He entered the district of Werinofelda, where a battle was fought, in which Miliduoeh, the chief of the Suurbi, was killed. The country was laid waste, whereupon the other Slave chiefs sent in their submission and gave hostages. Two towns were ordered to be built to overawe them, one north of the Elbe opposite Magdeburgh, the other in the eastern part of the Saale, near Halle. After this, the Franks returned home again (Chron. Moiss., Pertz, i, 308; Enhardus, *id.*, 193). In a capitulary of 807, we find provisions in regard to the preparations to be made in case the Bohemians or Sorabians should prove hostile (Schafarik, ii, 519, note 6).

Charlemagne died in 814. In Eginhardt's list of the nations he subdued, the Sorabi are mentioned (Pertz, ii, 451). In 816 his son Louis ordered the Franks and Saxons to march against the Sorabi (Eginhardt Annals, *id.*, i, 203). In 820 the Franks fought with Liudiwit, King of "the Eastern Slaves," whom Schafarik identifies with the Sorabi. To the Convention of 822, held at Frankfort, the Sorabi, with the other Eastern Slaves, sent envoys and presents; at the similar meeting at Ingelheim, in May, 826, Tunglo, the chief of the Sorabi, with Ceadrag of the Obodriti, were accused of malpractices. They were ordered to appear in October, when Tunglo having surrendered his son as a hostage, was allowed to return home again (*id.*, 215). The quarrels of Louis with his sons apparently induced an uneasy feeling on the frontier, and in 839 we find the Emperor ordering the Saxons to march against the Sorabi and Wiltzi, who had recently burnt some of the towns on the Saxon march. The Saxons, we are told, thereupon marched against the Sorabi called Colodici, as far as Kosinesburg (according to Leutsch the modern Guetz or Quetz). The Sorabi were defeated, and their chief, Cimuselus (Czimislaw), fell in the struggle (Prud. of Troyes, Pertz, i, 434, 436; Schafarik, ii, 522). The foundation of the bishopric of Bamberg took place in 834, and was a notable event in the history of the spread of Christianity among the Slaves. By the Treaty of Verdun, made in 843 between the sons of Louis, Germany, with the suzerainty over the Polabian Slaves, fell to Louis the German. This led to outbreaks on the frontier, and in 846 we find Louis marching against the Slaves beyond the Elbe and the Bohemians (Annales Xantenses, Pertz, xi, 228; Prud. of Troyes, Pertz, i, 442). In 849 we read of a Thacolf, the governor of the Sorabian March (*dux Sorabici limitis*), who had

a great reputation among the Slaves since he was well versed in their laws and customs (Fulda Annals, Pertz, i, 366). From some of the Fulda deeds it seems he had property in one of the Sorabian "gaus" (Meissen) and probably also in Bohemia. He is called "Tacgolfus de Bohemia comes" in one deed (Schafarik, ii, 523, note 4). In 851 we again find the Sorabi invading the Frank borders, and Louis marching against them. Having wasted their country, they were constrained by impending famine to submit; as the chronicler says, "they were subdued by hunger rather than by the sword" (*id.*, Pertz, i, 367). In 855 Louis was much disturbed by the attacks of the Slaves (Prud. of Troyes, *id.*, i, 449), and the next year he marched an army through the country of the Sorabi, whose chiefs joined him, and with their help he overcame the Daleminci, whom he made tributary and compelled to give hostages; thence he went among the Bohemians and subdued some of their chiefs. In this expedition he seems to have lost a great number of his men; one author says the larger part of his army (Fulda Annals, Pertz, i, 370; Prud. Trec. *id.*, 450). In 857 we read of the Sorabian Prince Zestibor offering refuge to a fugitive chief from Bohemia (Fulda Ann. *id.*, 370). In 858 an army was sent under Thacolf against the Sorabi, who were rebellious (*id.* 371). Later in the year news arrived that the Sorabi, having put to death his *protégé*, their chief, Zestibor, meditated rebelling. (*Id.*, 237.)

In 869 we read how the Sorabi and Siusli, having united with the Bohemians and other neighbouring tribes wasted the Thuringian borders, and killed some people there. Louis sent his son with the Thuringians and Saxons against the Sorabi, whom he defeated, and killed a great number of them, and severely punished the Bohemian contingent which had joined them (Fulda Annals, *id.*, i, 381). Hincmar tells a different story: he says that Louis obtained peace from the Winidi on certain conditions (*i.e.*, he had to sacrifice something) and sent his sons to ratify it, while he himself remained in a weak condition at Ratisbon (*id.*, i, 485). In 873 Thacolf, the ruler of the Sorabian march, died. The next year the Sorabi and Siusli rebelled: Raculf, Thacolf's son, and Archbishop Liutbert marched against them, crossed the Saale, wasted their lands, and restored them to their former subjection (Fulda Annals, *id.*, i, 385). In 880 the Margrave Poppo marched against the Bohemians, Serbians, and Daleminzi. This official had apparently ruled with a heavy hand, for some years after we find he was deprived, to the great relief of the Serbians, who sent to thank the Emperor (Schafarik, ii, 525). Meanwhile, the Serbs east of the Elbe united themselves with the Bohemians, and for some time formed part of the dominions of

the great Moravian ruler Swentopulk (Schafarik, ii, 525). We have, in fact, reached a period when the empire founded by the Carolingians, was *in extremis*, and when the German borders were much curtailed, the Elbe now forming their frontier from Bohemia to the sea. In 908 the Margrave Burkhardt, who could not make head against the Slaves beyond the Elbe, was killed in an encounter with them, while the Saxon Duke, Otho, the father of the later Emperor Henry, fought against the Daleminci in the same year. He was only able to add a small part of the Sorabian land to his dominions (Schafarik, ii, 525). When his son Henry succeeded to the crown of Germany, things entirely altered, and the Slaves were relentlessly conquered and incorporated. The war began in 921 with indecisive results. The following year, Henry marched into the land of the Milciani, whom he compelled to pay tribute, while he destroyed the town of Lubuzua (now Lebus) between Dahme and Schlieben (Schafarik, ii, 526). In 927, Henry suddenly entered the land of the Stodorani, captured their stronghold of Branibor, and made their princes tributary. He then passed into the land of the Daleminci, and captured their town of Grona (according to Leutsch, the modern Yahne, while Wersebe identifies it with Gruna), and having entered Bohemia, returned thence to Saxony in triumph (Schafarik, ii, 527). In 932 the Hungarians made an invasion of Thuringia, and passed in doing so through the land of the Daleminci. Henry's last campaign was against the Ukri, a branch of the Wiltzi, whom he in 934 compelled to pay tribute. (*Id.*)

About the year 960, the Saxon Count, Wichman, who was more or less of an outlaw, fled, first to the Danes, then to the Slaves at the mouth of the Oder. He then entered the service of his patron, the Margrave Gero, and made several attacks against the Lusatians, Milciani, Pomeranians, and Poles. In 963, Gero having been joined by a mercenary army of Slaves secured by Wichman, broke into Lusatia, and the land of the Milciani, who had sided with the Poles, defeated the Polish Prince, Michislaf, subdued the Lusatians and Milciani, and compelled the Polish princes to hold the land between the Warthe and the Bober as a German fief. Gero died in 965 (Schafarik, ii, 530). The Polabian Slaves having been more or less subdued, the Emperor Otho founded the Archbishopric of Magdeburg, with the subordinate sees of Merseburg, Zeitz (later Naumburg), and Meissen; the last in 968. We are told he knew both Latin and Slavic: "*Romana lingua Slavonicaque loqui sciebat, sed rarum est, quod earum uti dignaretur*" (Widukind, Schafarik, ii, 531, note 5). In 983, shortly before the death of Otho the Second, we find the Bohemians under the

Saxon Count, Dedo, making an invasion as far as Zeitz, which they laid waste, together with several towns and monasteries, as far as Magdeburg (Schafarik, ii, 533). A bloody fight at the River Tonger, in which 60,000 Slaves took part, was really undecided, although the Germans claimed the victory, and for many years a large part of the Slaves were practically independent. In 986, Otho the Third conquered the Stodorani, and in 992 recovered Brandenburg through the treason of a Saxon deserter.

In 1002 the Polish ruler Boleslaf Chrobry (*i.e.*, the brave) invaded the district of Meissen, and ravaged Lusatia and the country of the Milciani. This war continued for some time and eventually Boleslaf succeeded in annexing to his dominions the district of Lubus, Lusatia, the country of the Milciani and a part of Sorabia as far the Black Elster. (*Id.*, 534.)

In 1030 the Poles conquered Brandenburg, and the land of the Stodorani, which they held until 1101 (*id.*) In that year the Margrave Udo crossed the Elbe, conquered Magdeburg, and re-introduced Christianity there and in the neighbourhood (*id.*, 537), but this was only a transient success, and the old faith reinstated itself, while the Slavic nationality continued long unsophisticated. Albert the Bear undertook a fruitless campaign against them in 1136 and 1137, but we are now reaching a great turn in their fortunes. In 1157 Albert captured Brandenburg, conquered the Brizani and Stodorani, and gave a death-blow to an independent Slave nationality between the Elbe and the Oder. The Wiltzi, living on the Oder, became subject to Poland as early as 1121, and were the objects of Bishop Otho the First of Bamberg's missionary campaign in 1124–1129; and when at length the Danish King Valdemar, with Bishop Absalom, conquered the sacred island of Rugen and the Temple of Arkrona, the last traces were effaced of an independent Slave race between the Oder and the Elbe. A similar fate overtook the Sorabians living between the Saale, the Elbe, and the mountains separating Bohemia and Saxony. They had been defeated in two attempts which they made against Henry the Fowler in 922 and 927 to regain their freedom; their Germanization was vigorously prosecuted, especially after the foundation of the bishoprics of Meissen and of Zeitz (968). We find German towns being incessantly built and planted with German colonists while German officers were appointed over the gaus, who were subjected in 929 to the Margrave of Meissen. The most important of these Margraves were—Dedo, who was deposed in 953; Gunter, who reigned till 973; Riddag till 984; Ekkilhard, a hard and warlike man who subdued the Milciani about 1000 A.D.; Herman

till 1032. At the beginning of the eleventh century, Conrad of Wettin was Margrave of Meissen. He extirpated the nationality of the Sorabians on this side of the Elbe by craft and with the sword. Beyond the Elbe, and in the later Lusatia, the Serbs had a better fate: sometimes independent, sometimes, as under the great Swentopolk, subject to Bohemia and Moravia. According to Dithmar, Henry the Fowler made them tributary in 922, but this tribute was very small, and was only paid for a short time. Soon after we find the Serbs entirely independent; the campaign which Henry in 927 had prosecuted against the Serbs west of the Elbe, did not affect *them*. When at length they were again compelled by the German Margraves to pay tribute, this was very slight, and they retained their manners and customs. During the war between King Otho the First and Boleslaf of Bohemia in 936, in which the Milciani and Lusatians were in alliance with the Bohemians, the Serbs were again subdued by the Germans. In 963 they were divided between the Margrave and the Bishop of Meissen. During the bloody war between Otho the Third and the Lusatians in 994, in which nearly all the Polabian Slaves took a part, the Sorabians remained quiet. Soon after, their country became the scene of a prolonged strife between the Poles, the Germans, and the Bohemians. In 1002 the Margrave Ekkihard conquered the land of the Milciani in order to prevent the Pole Boleslaf Chrobry from doing so. But the same year, the latter not only over-ran this district and Lusatia, but also defended the land from the Oder to the Black Elster against the attacks of the Germans. This struggle was repeated in 1003 and 1004, 1011, etc., and indeed until his death. During the interregnum in Poland, the Germans again in 1030 conquered these countries; but in the course of the eleventh century they were again for a short time under the Bohemian rule.

When the German authority was reimposed over these districts, the Sorabians were treated more considerately than the other Slaves, partly because they had already become Christian under their Polish and Bohemian masters, and partly because it was feared they might again go over to the latter. They accordingly preserved considerable traces of their language and nationality, which were only effaced in comparatively recent times.

Schafarik has collected an interesting chain of evidences to show that the continual outbreaks and apparently ruthless character of the Slaves on the Elbe were due to the oppression they suffered from the German frontier commanders rather than to their disposition, which, like that of the Slaves elsewhere, was generally of a peaceful and quiet character.

Adam of Bremen, who was surely an unbiassed witness, says:—"Audivi etiam . . . populos Slavorum jam dudum procul dubio facile converti posse ad Christianitatem, nisi Saxonum obstitisset avaritia, quibus mens pronior est ad pensiones vectigalium, quam ad conversionem gentium. Nec attendunt miseri, quantum suæ cupiditatis luant periculum, qui Christianitatem in Slavania primo per avaritiam turbaverunt, deinde per crudelitatem subjectas ad rebellandum coegerunt, et nunc salutem eorum, qui credere vellent pecuniam solam exigendo, contemnunt . . . a quibus si tantum fidem posceremus, et illi jam salvi essent et nos certe essemus in pace." (*Op. cit.*, iii, 25; Schafarik, ii, 542.)

Helmold has quite a number of passages supporting the same view, from which I will abstract two; he says in one place: "Principes (Germanorum) pecuniam inter se partiti sunt. De Christianitate nulla fuit mentio. . . unde cognosci potest Saxonium insatiabilis avaritia, qui cum inter gentes ceteras barbaris contiguas præpolleant armis et usu militiæ, semper proniores sunt tributis augmentandis, quam animabus domiro conquirendis. Decor enim Christianitatis, sacerdotum instantia, jam dudum in Slavia convaluisset, si Saxonum avaritia non præpedisset" (*op. cit.*, c. 21). Again: "Principes nostri tanta severitate grassantur in nos, ut propter vectigalia et servitutem durissimam melior sit nobis mors quam vita . . . Quotidie emungimur et premimur usque ad exinanitionem. Quomodo ergo vacabimus huic religioni novæ, ut ædificemus ecclesias et percipiamus baptismum, quibus quotidiana indicitur fuga? si tamen locus esset, quo diffugere possemus. Trans-euntibus enim Travenam, ecce similis calamitas illic est; venientibus ad Panim fluvium, nihilominus adest. Quid ergo restat, quam ut omissis terris feramur in mare et habitemus cum gurgitibus," etc. (*id.* ch. 83). In a document of 1285, given by Helmold, we find the following ruthless sentence: "Velimus et debeamus omnes Slavos et cives, eandem nunc villam (Velitz) inhabitantes, eliminare . . . sine omni spe reversionis," etc., etc. (Schafarik, ii, 542 and 543, note 2.)

There can be small doubt that, as Schafarik urges, the reason why Christianity made such little progress among the Polabian Slaves, was because it was so Erastian in character, and was deemed, as it is still deemed in China, to be a weapon of political propaganda, and we accordingly find that so long as the Slaves in this district retained their nationality they also clung to their old faith. The great preservers of this nationality were the old religion and the old language. In order to prosecute their work of evangelization we are told how the clergy learnt the Slavic tongue. Among those who are

recorded as knowing it were Boso and Werner, bishops of Merseburgh, the former before 971, the latter before 1101, as well as the priest Bruno, who flourished about 1156. The first of these, according to Dithmar, also knew how to write Slavic, and taught his converts how to sing the "Kyrie Eleison." This phrase we are told the Slaves scornfully corrupted into "we kri olsa," *i.e.* "the alder in the thickets." Dithmar himself seems to have known something of Slavic, judging from a number of his explanations of names of places, which are not, however, always happy. According to the Merseburgh Chronicle, books were also composed in Slavic to assist those who wished to learn the language. Helmold tells us that Gottschalk, the Obodritan prince, preached in Slavic, and translated the addresses of the German missionaries into the same language. Bishop Otho, who spread the gospel in Pomorania between the years 1124 and 1129, is said to have spoken Slavic so well that he was mistaken for a native. The Emperor Otho the First is also said to have been able to speak Slavic, also Arnulph Count of Wagria, who lived about 1140; but no Slavic documents from this area and of this date have come down to us except an interlinear series of glosses attached to a German's Latin Psalter of the eleventh and twelfth century, of which fragments were published by F. Wiggert.

This completes for the present our survey of a most difficult and complicated subject, interesting in every way to the political philosopher no less than the ethnologist. Few people realize the very small element of Teutonic origin that there is among the people of Prussia, and that the race which is now dominant in Germany is very largely indeed of Slavic origin. East of the Elbe nearly all the labouring population of the country districts is probably Slav. The aristocracy and land-owners are no doubt Germans by pedigree, being descended from the Teutonic Knights and later immigrants. The citizens of the towns are doubtless also very largely Germans, the plantation of whom in the land of the Slaves took place at a very early date.

Thus Helmold in recounting the doings of the famous Margrave Albert the Bear, after describing his conquest of the Brizani, Stodorani, and other tribes on the Elbe and the Havel, says: "*Ad ultimum deficientibus sensim Slavis, misit Trajectum et ad loca Rheno contigua, insuper ad eos, qui habitant juxta oceanum et patiebatur vim maris, videlicet Hollandos, Selandos, Flandros, et adduxit ex eis populum magnum nimis et habitare eos fecit in urbibus et oppidis Slavorum*" (Helm. i, 88).

Henry the Lion did the same among the Obodriti and

Wagriani : "Munitiones quas dux jure belli possederat in terra Obodritorum, cœperunt inhabitari a populis advenarum qui intraverant terram ad possidendum eam . . . Porro Henricus comes de Rasesburg quæ est in terra Polaborum adduxit multitudinem populorum de Westfalia ut incolerent terram Polaborum et divisit eis terram in funiculo distributionis" (Helm. i., 91 ; Zeuss, 659).

Again, in another passage : "Et præcepit dux Slavis qui remanserant in terra Wagirorum, Polaborum, Obodritorum, Kycinorum, ut solverent redditus episcopales . . . Et auctæ sunt decimationes in terra Slavorum, eo quod confluerent *de terris suis homines Teutonici ad incolendam terram spatiosam* fertilem frumento, commodam pascuorum ubertate, abundantem pisce et carne et omnibus bonis" (Helmold, i., 87 ; Zeuss, *loc. cit.*).

The story of the planting of Germans in Wagria is thus told : "Surrexit innumera multitudo de variis nationibus assumptisque familiis cum facultatibus, venerunt in terram Wagirensium ad comitem Adolfum, possessuri terram . . . Et primi quidem Holzatenses acceperunt sedes in locis tutissimis ad occidentalem plagam Sigeberg circa flumen Trabenam campestria quoque Zwentineveld et quicquid e rivo Sualen usque Agrimesou et lacum Plunensem extenditur. Dargunensem pagum Westfali, Utinensem Hollandi, Susle Fresi incoluerunt. Porro Plunensis adhuc desertus erat pagus. Aldenburg vero et Lutilenburg et cœteras, terras mari contiguas dedit Slavis, incolendas, factique sunt ei tributarii" (Helm. i., 57). Again, he says : "Reædificavit comes castrum Plunen et fecit illic civitatem et forum. Et recesserunt Slavi, qui habitant in oppidis circumjacentibus et venerunt Saxones et habitaverunt illic. Defeceruntque Slavi paulatim in terra" (*id.* i., 83). West of the Elbe, in some districts as I have said, as in the neighbourhood of Wuestrof, the Slaves retained their idiosyncrasies till a late date ; but the main body of the citizens of the town was here, no doubt, German also.

Speaking of the Margrave Albert, we are told by Helmold : "Et australe littus Albiæ ipso tempore coeperunt incolere *Hollandienses, alrenæ* ab urbe Salevelde (Saltwedele) omnem terram *palustrem atque campestram, terram quæ dicitur Balsemerlande et Marscinerlande*, civitates et oppida multa valde, usque ad saltum Bojemicum possederunt Hollandi. Sequidem hac terras Saxones olim inhabitasse feruntur, tempore scilicet Ottonum, ut videri potest in antiquis aggeribus, qui congesti fuerant super ripas Albiæ in terra palustri Balsamiorum sed prævalentibus postmodum Slavis, Saxones occisi et terra a Slavis usque ad nostra tempora possessa. Nunc vero quia

Dominus duci nostro et ceteris principibus salutem et victoriam large contribuit, Slavi usquequaque protriti atque propulsi sunt et venerunt adducti de finibus oceani populi fortes et innumerabiles et obtinuerunt terminos Slavorum" (Helm. i., 81 ; Zeuss, 661 and 662).

After due allowance for all these and similar changes the fact remains that the great body of peasantry in Prussia east of the Elbe are of Slavic descent, and the fact that they have so largely lost their Slavic characteristics, and become merged in their conquerors, makes the problem of their ethnology none the less interesting because it is so tedious and difficult. Many of our conclusions about it, which are so largely indebted to the profound researches of Schafarik and Zeuss, are necessarily only tentative, and I hope to return to the subject when in a future paper we deal with the Wiltzi and Pomorians. Our next excursus will be concerning the Bulgarians.

ANTHROPOLOGICAL MISCELLANEA.

FRENCH ANTHROPOLOGY.

THE Anthropological Society of Paris was the cradle and is now the centre of Anthropological studies in France. The eminent M. Broca is both Secretary of the Society and President of the School of Anthropology. Under his direction is published the valuable "*Revue d'Anthropologie*." M. Broca is also the guiding spirit of the Anthropological Laboratory of the Practical School of Medicine. The Society for the advancement of Sciences furnishes the most active members of the Association. M. de Quatrefages, of the Museum of Natural History, is at present the only official Professor of Anthropology in France. In Lyons, an Anthropological Museum has recently been founded, under the direction and supervision of MM. Lartet and Chantre. To this there will in all probability be added a Laboratory and School. In Toulouse, M. Cartailiac publishes "*Matériaux pour servir l'histoire naturelle de l'homme*;" the special object of this publication is prehistoric archæology.

Such are the present centres of Anthropology: of their labours I may briefly refer to recent inquiries discussed before the Anthropological Society of Paris, deliberations which arose from a discovery of M. de Ujfalvy in the mountains of the Upper Zerafshan. This traveller, by birth a Hungarian, was sent by the French Government a few years ago, for scientific purposes, to Russian Turkestan. The writer of this note directed his attention to the Highlanders of the Upper Valley of the Zerafshan or Sogdian River, the Galtchas, who are said to represent the purest remains of Aryan blood in that country. M. de Ujfalvy was so fortunate as to measure a large number of these people, and bring over to Paris a series of skulls of Eranian origin, modern representatives of the ancient Sogdians and Bactrians. M. Topinard was impressed by the wonderful analogy of the Eranian skulls of Central Asia, with the brachycephalic Celtic types of M. Broca. He saw by the facts brought to light by M. de Ujfalvy, a new proof of the Asiatic origin of the Aryas. It created a discussion which is not yet at an end, for Mde. Clemence Royer did not lose so good an opportunity of reviving her theories upon the European origin of the languages and people of Europe. M. Pietrement, on the contrary, maintained the opposite opinion. He endeavoured to establish, upon the traditions contained in the Avesta, that not only the Aryas had their origin in Central Asia, but that their primitive seat was to be found between the Alatan Moun-

tains and the Balkash Lakes, saying that the first was the sacred line, Hara Beregat, and the second the Vouva Kasha Lake, or sea of the Zend-Zoroastrian texts. M. de Mortillet's researches as to whence came the domestic animals and cultivated plants brought into Europe at the end of the Neolithic period have established that they originated in a country south of the Caucasus and the Caspian Sea. The question is one of interest, and though still discussed, has been rendered of still more importance by the valuable discoveries of the Hungarian traveller.

The School of Anthropology has recently become the theatre for the teachings of a new Professor of Medical Geography, viz., M. Bordier. This inquirer is learning much in connection with Pathological Anthropology. He is studying the diseases by which the various races of different climates are peculiarly infected. Such researches are new, and the principle of inquiry as practised by M. Bordier is yet in its infancy, but we are convinced that it will progress satisfactorily under the guidance of its talented and able Professor.

M. Bordier has, in addition, forwarded through the Anthropological Society useful instructions to travellers destined for the Indian Archipelago, &c., for prosecuting further inquiries relative to the long-neglected subject of "Medical Geography."

In a recent number of the "*Revue d'Anthropologie*" this anthropologist has published an interesting paper on a collection of skulls of murderers. This collection, consisting of 36 specimens, was in the Pavilion of Anthropological Sciences at the Universal Exhibition of 1878. M. Bordier was struck by the peculiar formation of these skulls, which all showed characteristics of atavism, and reminded him of prehistoric types. His examination led him to the conclusion that the criminal man is an anachronism, a savage in a civilized country, and he compares him to those restive animals which eventually appear in our tame species. Of the 36 skulls, three only were neither abnormal nor pathological, and M. Bordier does not see, with Maudsley, that in these criminals there are intermediate types between men sane and insane. He considers that had these individuals been submitted to a right cerebral orthopedy they would not have been guilty of such crimes, but he formally asserts that in a legal point of view, Society has a right and is compelled to get away from the range of the criminal be he sick, responsible or not.

To the same number M. Henri Martin contributed a curious paper on Irish Traditions compared with recent Anthropological discoveries.* M. Martin is a distinguished Celtic scholar, but he gives different names to the ancient population in Gaul from those adopted by M. Broca. M. Martin considers the Celts to be fair-haired dolichocephals, who came from the far East, and the brown brachycephals to be Celticised Autochthons. In Ireland, he sees

* M. Martin communicated to the British Association at Dublin a paper on the same subject, which is printed at p 585 of the Report of that meeting there. Ed.

first the fair-haired Nemedi conquering the green Erin and its unknown indigenous inhabitants, then came the Fir-Bolgs, with brown hair and eyes, but acquainted with the Celtic language and customs; these were vanquished in later times by the children of the Gods of Dorn, tall and fair-haired people driven out of Scandinavia by the Cymbric invasion.

In concluding this note I would mention a useful little book written by M. Zoborowski, a Frenchman of Polish origin. It is on the "Origin of Language." The author, reviewing previous theories on this important topic, criticises them with both learning and skill. His opinion was that of the Roman poet Lucretius, magnified in France in the last century by the President De Brosses, and which has been resumed, the means of expression were primitively analogous with man and beast. Articulated language has been acquired by man, growing but slowly and gradually from generation to generation.

GHARAD DE RIALLE.

ADDRESS to the DEPARTMENT of ANTHROPOLOGY of the BRITISH ASSOCIATION, Sheffield, August 21, 1879. By EDWARD B. TYLOR, D.C.L., F.R.S., President Anthropological Institute.

IN surveying modern scientific opinion, the student is often reminded of a doctrine proclaimed in the ancient hymns of the Zend-Avesta, that of *Zrvāna akarana*, or "endless time." Our modern schemes of astronomy, geology, biology, are all framed on the assumption of past time immense in length. In fact, one reason why the latter sciences grew so slowly till almost our own day, was their being shackled by the bonds of a short chronology allowing no room for the long successive periods through which it is now clear that the earth with its plants and animals passed into their present state. Even the Science of Man, though concerned with the later forms of being, belonging to times which geologists treat as almost modern, has nevertheless to deal with periods of time extending far back beyond the range of history and chronology.

Looking back 4,000 to 5,000 years, what is the appearance of mankind as disclosed to us by the Egyptian monuments and inscriptions? Several of the best marked races of man were already in existence, including the brown Egyptian himself, the dark-white Semitic man of Assyria or Palestine, the Central African of two varieties, which travellers still find as distinct as ever, namely, the black or Negro proper, and the copper-coloured negroid, like the Bongo or Nyam-nyam of our own time. Indeed, the evidence accessible as to ancient races of man goes to prove that the causes which brought about their differences in types of skull, hair, skin, and constitution, did their chief work in times before history began. Since then the races which had become adapted to their geo-

graphical regions may have, on the whole, undergone little change while remaining there, but some alterations are traced as due to migration into new climates. Even these are difficult to follow, masked as they are by the more striking changes produced by intermarriage of races. Now the view that the races of man are to be accounted for as varied descendants of one original stock is zoologically probable from the close resemblance of all men in body and mind, and the freedom with which races intercross. If it was so, then the fact of the different races already existing early in the historical period compels the naturalist to look to a præ-historic period for their development to have taken place in. And considering how strongly differenced are the Negro and the Syrian, and how slowly such changes of complexion and feature take place within historical experience, this præ-historic period was probably of vast length. The evidence from the languages of the world points in the same direction. In times of ancient history we already meet with families of languages, such as the Aryan and the Semitic, and as later history goes on many other families of language come into view, such as the Bantu or Kafir of Africa, the Dravidian of South India, the Malayo-Polynesian, the Algonquin of North America, and other families. But what we do not find is the parent language of any of these families, the original language which all the other members are dialects of, so that this parent tongue should stand towards the rest in the relation which Latin holds to its descendants, Italian and French. It is, however, possible to work back by the method of philological comparison, so as to sketch the outlines of that early Aryan tongue which must have existed to produce Sanskrit and Persian, Greek and Latin, German, Russian, and Welsh, or the outlines of that early Semitic tongue which must have existed to produce Assyrian, Phœnician, Hebrew, and Arabic. Though such theoretical reconstructions of parent languages from their descendants may only show a vague and shadowy likeness to the reality, they give some idea of it. And what concerns us here is that theoretical early Aryan and Semitic, or other such reconstructed languages, do not bring our minds appreciably nearer to really primitive forms of speech. However far we get back, the signs of development from still earlier stages are there. The roots have mostly settled into forms which no longer show the reasons why they were originally chosen, while the inflexions only in part preserve traces of their original senses, and the whole structure is such as only a long-lost past can account for. To illustrate this important point, let us remember the system of grammatical gender in Greek or German, how irrationally a classification by sex is applied to sexless objects and thoughts, while even the use of a neuter gender fails to set the confusion straight, and sometimes even twists it with a new perversity of its own. Many a German and Frenchman wishes he could follow the example of our English forefathers who, long ago, threw overboard the whole worthless cargo of grammatical gender. But looking at gender in the ancient grammars, it must be remembered that human

custom is hardly ever wilfully absurd, its unreasonableness usually arising from loss or confusion of old sense. Thus it can hardly be doubted that the misused grammatical gender in Hebrew or Greek is the remains of an older and reasonable phenomenon of language: but if so, this must have belonged to a period earlier than we can assign to the theoretical parent language of either. Lastly, the development of civilisation requires a long period of præ-historic time. Experience and history show that civilisation grew up gradually, while every age preserves recognisable traces of the ages which went before. The woodman's axe of to-day still retains much of the form of its ancestor—the stone celt in its wooden handle; the mathematician's tables keep up in their decimal notation a record of the early ages when man's ten fingers first taught him to count; the very letters with which I wrote these lines may be followed back to the figures of birds and beasts and other objects drawn by the ancient Egyptians, at first as mere picture writing to denote the things represented. Yet, when we learn from the monuments what ancient Egyptian life was like towards 5,000 years ago, it appears that civilization had already come on so far that there was an elaborate system of government, an educated literary priesthood, a nation skilled in agriculture, architecture, and metal work. These ancient Egyptians, far from being near the beginning of civilization, had, as the late Baron Bunsen held, already reached its halfway house. This eminent Egyptologist's moderate estimate of man's age on the earth at about 20,000 years has the merit of having been made on historical grounds alone, independently of geological evidence, for the proofs of the existence of man in the quaternary or mammoth period had not yet gained acceptance.

My purpose in briefly stating here the evidence of man's antiquity derived from race, language, and culture is to insist that these arguments stand on their own ground. It is true that the geological argument from the implements in the drift-gravels and bone-caves, by leading to a general belief that man is extremely ancient on the earth, has now made it easier to anthropologists to maintain a rationally satisfactory theory of the race-types and mental development of mankind. But we should by no means give up this vantage ground, though the ladder we climbed by should break down. Even if it could be proved that the flint implements of Abbeville or Torquay were really not so ancient as the pyramids of Egypt, this would not prevent us from still assuming, for other and sufficient reasons, a period of human life on earth extending many thousand years farther back.

It is an advantage of this state of the evidence that it to some extent gets rid of the "sensational" element in the problem of fossil man, which it leaves as merely an interesting inquiry into the earliest known relics of savage tribes. Geological criticism has not yet absolutely settled either way the claims of the Abbé Bourgeois' flints from Thénay to be of Miocene date, or of Mr. Skerckchly's from Brandon to be Glacial. The accepted point is that the men who made the ordinary flint implements of the drift lived in the

quaternary period characterised by the presence of the mammoth in our part of Europe. More than one geologist, however, has lately maintained that this quaternary period was not of extreme antiquity. The problem is, at what distance from the present time the drift gravels on the valley slopes can have been deposited by water action up to one hundred feet or so above the present flood-levels? It does not seem the prevailing view among geologists that rivers on the same small scale as those at present occupying mere ditches in the wide valley-floors could have left these deposits on the hill sides at a time when they had not yet scooped out the valleys to within fifty or a hundred feet of their present depth. Indeed, such means are insufficient out of all proportion to the results, as a mere look down from the hill-tops into such valleys is enough to show. Geologists connect the deposit of the high drift-gravels with the subsidence and elevation of the land, and the powerful action of ice and water at the close of the Glacial age; and the term "Pluvial period" is often used to characterise this time of heavy rainfall and huge rivers. It was then that the rude stone implements of palæolithic man were imbedded in the drift-gravels with the remains of the mammoth and fossil rhinoceros, and we have to ask what events have taken place in these regions since? The earth's surface has been altered to bring the land and water to their present levels. the huge animals become extinct, the country was inhabited by the tribes whose relics belong to the neolithic or polished-stone age, and afterwards the metal-using Keltic nations possessed the land, their arrival being fixed as previous to 400 B.C., the king of the Gauls then being called by the Romans by the name *Brennus*, which is simply the Keltic word for "king"—in modern Welsh *brenin*. To take in this succession of events geologists and archæologists generally hold that a long period is required. Yet there are some few who find room for them all in a comparatively short period. I will mention Principal Dawson, of Montreal, well known as a geologist in this Association, and who has shown his conviction of the soundness of his views by addressing them to the general public in a little volume entitled "The Story of the Earth and Man." Having examined the gravels of St.-Acheul, on the Somme, where M. Boucher de Perthes found his celebrated drift implements, it appeared to Dr. Dawson that, taking into account the probabilities of a different level of the land, a wooded condition of the country and greater rainfall, and a glacial filling up of the Somme valley with clay and stones subsequently cut out by running water, the gravels could scarcely be older than the Abbeville peat, and the age of this peat he estimates as perhaps less than four thousand years. Within this period Dr. Dawson includes a comparatively rapid subsidence of the land, with a partial re-elevation, which left large areas of the lower grounds beneath the sea. This he describes as the geological deluge which separates the post-glacial period from the modern, and the earlier from the later prehistoric period of the archæologists.

My reason for going here into these computations of Dr. Daw-

son's is that the date about 2200 B.C., to which he thus assigns these great geological convulsions, is actually within historic times. In Egypt successive dynasties had been reigning for ages, and the pyramids had long been built; while in Babylonia the old Chaldæan kings had been raising the temples whose ruins still remain. That is to say, we are asked to receive, as matter of geology, that stupendous geological changes were going on not far from the Mediterranean, including a final plunge of I know not how much of the earth's surface beneath the waters, and yet national life on the banks of the Nile and the Euphrates went on unbroken and apparently undisturbed through it all. To us in this Section it is instructive to see how the free use of paroxysms and cataclysms makes it possible to shorten up geological time. Accustomed as we are to geology demanding periods of time which often seem to history exorbitant, the tables are now turned, and we are presented with the unusual spectacle of chronology protesting against geology for encroaching on the historical period.

In connection with the question of quaternary man, it is worth while to notice that the use of the terms "primæval" or "primitive" man, with reference to the savages or the mammoth period, seems sometimes to lead to unsound inferences. There appears no particular reason to think that the relics from the drift-beds or bone-caves represent man as he first appeared on the earth. The contents of the caves especially bear witness to a state of savage art, in some respects fairly high, and which may possibly have somewhat fallen off from an ancestral state in a more favourable climate. Indeed, the savage condition generally, though rude and more or less representing early stages of culture, never looks absolutely primitive, just as no savage language ever has the appearance of being a primitive language. What the appearance and state of our really primæval ancestors may have been seems too speculative a question, until there shall be more signs of agreement between the anthropologists, who work back by comparison of actual races of man toward a hypothetical common stock, and the zoologists, who approach the problem through the species adjoining the human. There is, however, a point relating to the problem to which attention is due. Naturalists not unreasonably claim to find the geographical centre of man in the tropical regions of the old world inhabited by his nearest zoological allies, the anthropomorphous apes, and there is at any rate force enough in such a view to make careful quest of human remains worth while in those districts, from Africa across to the Eastern Archipelago. Under the care of Mr. John Evans a fund has been raised for excavations in the caves of Borneo by Mr. Everett, and though the search has as yet had no striking result, money is well spent in carrying on such investigations in likely equatorial forest regions. It would be a pity that for want of enterprise a chance, however slight, should be missed of settling a question so vital to anthropology.

While the problem of primitive man thus remains obscure, a somewhat more distinct opinion may be formed on the problem of

primitive civilized man. When it is asked what races of mankind first attained to civilization, it may be answered that the earliest nations known to have had the art of writing, the great mark of civilization as distinguished from barbarism, were the Egyptians and Babylonians, who in the remotest ages of history appear as nations advanced to the civilized stage in arts and social organization. The question is, Under what races to class them? What the ancient Egyptians were like is well known from the monuments, which show how closely much of the present fellah population, as little changed in features as in climate and life, represent their ancestors of the times of the Pharaohs. Their reddish-brown skin, and features tending toward the negroïd, have led Hartmann, the latest anthropologist who has carefully studied them, to adopt the classification of them as belonging to the African rather than the Asiatic peoples, and specially to insist on their connection with the Berber type, a view which seems to have been held by Blumenbach. The contrast of the brown Egyptians with the dark-white Syro-Arabians on their frontiers is strongly marked, and the portraits on the monuments show how distinctly the Egyptian knew himself to be of different race from the Semite. Yet there was mixture between the two races, and what is most remarkable, there is a deep-seated Semitic element in the Egyptian language, only to be accounted for by some extremely ancient and intimate connection. On the whole, the Egyptians may be a mixed race, mainly of African origin, perhaps from the southern Somali-land, whence the Egyptian tradition was that the gods came, while their African type may have since been modified by Asiatic admixture. Next, as to the early relations of Babylonia and Media, a different problem presents itself. The languages of these nations, the so-called Akkadian and the early Media, were certainly not of the same family with either the Assyrian or the Persian which afterwards prevailed in their districts. Their connection with the Tatar or Turanian family of languages, asserted twenty years ago by Oppert, has since been further maintained by Lenormant and Sayce, and seems, if not conclusively settled, at any rate to have much evidence for it, not depending merely on similarity of words, such as the term for 'god' Akkadian *dinġira*, being like the Tatar *teŋgri*, but also on similarity of pronouns and grammatical structure by post-positions. Now language, though not a conclusive argument as to race, always proves more or less as to connection. The comparison of the Akkadian language to that of the Tatar family is at any rate *prima facie* evidence that the nations who founded the ancient civilization of Babylonia, who invented the cuneiform writing, and who carried on the astronomical observations which made the name of Chaldean famous for all time, may have been not dark-white peoples like the Assyrians who came after them, but perhaps belonged to the yellow race of Central Asia, of whom the Chinese are the branch now most distinguished in civilization. M. Lenormant has tried to identify among the Assyrian bas-reliefs certain figures of men whose round skulls, high cheek-bones, and

low-bridged noses present a Mongoloid type contrasting with that of the Assyrians. We cannot, I think, take this as proved, but at any rate in these figures the features are not those of the aquiline Semitic type. The bronze statuette of the Chaldean king called Gudea, which I have examined with Mr. Pinches at the British Museum, is also, with its straight nose and long thin beard, as un-Assyrian as may be. The anthropological point towards which all this tends is one of great interest. We of the white race are so used to the position of leaders in civilization, that it does not come easy to us to think we may not have been its original founders. Yet the white race, whether the dark-whites, such as Phœnicians or Hebrews, Greeks or Romans, or the fair-whites, such as Scandinavians and Teutons, appear in history as followers and disciples of the Egyptians and Babylonians, who taught the world writing, mathematics, philosophy. These Egyptians and Babylonians, so far as present evidence reaches, seem rather to have belonged to the races of brown and yellow skin than to the white race.

It may be objected that this reasoning is in several places imperfect, but it is the use of a departmental address not only to lay down proved doctrines, but to state problems tentatively as they lie open to further inquiry. This will justify my calling attention to a line of argument which, uncertain as it at present is, may perhaps lead to an interesting result. So ancient was civilization among both Egyptians and Chaldeans, that the contest as to their priority in such matters as magical science was going on hotly in the classic ages of Greece and Rome. Looking at the literature and science, the arts and politics, of Memphis and of Ur of the Chaldees, both raised to such height of culture near 5,000 years ago, we ask, were these civilizations not connected, did not one borrow from the other? There is at present a clue which, though it may lead to nothing, is still worth trial. The hint of it lies in a remark by Dr. Birch as to one of the earliest of Egyptian monuments, the pyramid of Kochome, near Sakkara, actually dating from the first dynasty, no doubt beyond 3000 B.C., and which is built in steps like the seven-storied Babylonian temples. Two other Egyptian pyramids, those of Abu-sir, are also built in steps. Now whether there is any connection between the building of these pyramids and the Babylonian towers, does not depend on their being built in stages, but in the number of these stages being seven. As to the Babylonian towers, there is no doubt, for though Birs-Nimrod is now a ruinous heap, the classical descriptions of such temples, and the cuneiform inscriptions, put it beyond question that they had seven stages, dedicated to the seven planets. As to the Egyptian pyramids, the archaeologists Segato and Masi positively state of one step-pyramid of Abur-sir, that it had seven decreasing stages, while, on the other hand, Vyse's reconstruction of the step-pyramid of Sakkara shows there only six. Considering the ruinous state of all three step-pyramids, it will require careful measurement to settle whether they originally had seven stages or not. If they had, the correspondence cannot be set down to accident, but must be taken

to prove a connection between Chaldæa and Egypt as to the worship of the seven planets, which will be among the most ancient links connecting the civilizations of the world. I hope by thus calling attention to the question, to induce some competent architect visiting Egypt to place the matter beyond doubt, one way or the other.

While speaking of the high antiquity of civilization in Egypt, the fact calls for remark, that the use of iron as well as bronze in that country seems to go back as far as historical record reaches. Brugsch writes in his "Egypt under the Pharaohs," that Egypt throws scorn on the archæologists' assumed successive periods of stone, bronze, and iron. The eminent historian neglects, however, to mention facts which give a different complexion to the early Egyptian use of metals, namely, that chipped flints, apparently belonging to a prehistoric Stone Age, are picked up plentifully in Egypt, while the sharp stones, or stone knives used by the embalmers seem also to indicate an earlier time when these were the cutting instruments in ordinary use. Thus there are signs that the Metal Age in Egypt, as elsewhere in the world, was preceded by a Stone Age, and if so, the high antiquity of the use of metal only throws back to a still higher antiquity the use of stone. The ancient iron-working in Egypt is, however, the chief of a group of facts which are now affecting the opinions of anthropologists on the question whether the Bronze Age everywhere preceded the Iron Age. In regions where, as in Africa, iron ore occurs in such a state that it can after mere heating in the fire be forged into implements, the invention of iron-working would be more readily made than that of the composite metal bronze, which perhaps indicates a previous use of copper, afterwards improved on by an alloy of tin. Professor Rolleston, in a recent address on the Iron, Bronze, and Stone Ages, insists with reason that soft iron may have been first in the hands of many tribes, and may have been superseded by bronze as a preferable material for tools and weapons. We moderns, used to fine and cheap steel, hardly do justice to the excellence of bronze, or gun-metal as we should now call it, in comparison with any material but steel. I well remember my own surprise at seeing in the Naples Museum that the surgeons of Herculaneum and Pompeii used instruments of bronze. It is when hard steel comes in, that weapons both of bronze and wrought iron have to yield, as when the long soft iron broad-swords of the Gauls bent at the first blow against the pikes of Flaminius' soldiers. On the whole, Professor Virchow's remarks in the Transactions of the Berlin Anthropological Society for 1876, on the question whether it may be desirable to recognise instead of three only two ages, a Stone Age and a Metal Age, seem to put the matter on a fair footing. Iron may have been known as early as bronze or even earlier, but nevertheless there have been periods in the life of nations when bronze, not iron, has been the metal in use. Thus there is nothing to interfere with the facts resting on archæological evidence, that in such districts as Scandinavia or Switzerland a Stone Age was at some

ancient time followed by a Bronze Age, and this again by an Iron Age. We may notice that the latter change is what has happened in America within a few centuries, where the Mexicans and Peruvians, found by the Spaniards living in the Bronze Age, were moved on into the Iron Age. But the question is whether we are to accept as a general principle in history the doctrine expounded in the poem of Lucretius, that men first used boughs and stones, that then the use of bronze became known, and lastly iron was discovered. As the evidence stands now, the priority of the Stone Age to the Metal Age is more firmly established than ever, but the origin of both bronze and iron is lost in antiquity, and we have no certain proof which came first.

Passing to another topic of our science, it is satisfactory to see with what activity the comparative study of laws and customs, to which Sir Henry Maine gave a new starting-point in England, is now pursued. The remarkable inquiry into the very foundations of society in the structure of the family, set afoot by Bachofen in his "*Mütterrecht*," and McLennan in his "*Primitive Marriage*," is now bringing in every year new material. Mr. L. H. Morgan, who, as an adopted Iroquois, became long ago familiar with the marriage-laws and ideas of kinship of uncultured races, so unlike those of the civilized world, has lately made, in his "*Ancient Society*," a bold attempt to solve the whole difficult problem of the development of social life. I will not attempt here any criticism of the views of these and other writers on a problem where the last word has certainly not been said. My object in touching the subject is to mention the curious evidence that can still be given by rude races as to their former social ties, in traditions which will be forgotten in another generation of civilised life, but may still be traced by missionaries and others who know what to seek for. Thus, such inquiry in Polynesia discloses remarkable traces of a prevalent marriage-tie which was at once polygamous and polyandrous, as where a family of brothers were married jointly to a family of sisters: and I have just noticed in a recent volume on "*Native Tribes of South Australia*," a mention of a similar state of things occurring there. As to the general study of customs, the work done for years past by such anthropologists as Professor Bastian, of Berlin, is producing substantial progress. Among recent works I will mention Dr. Karl Andree's "*Ethnologische Parallelen*," and Mr. J. A. Farrar's "*Primitive Manners*." In the comparison of customs and inventions, however, the main difficulty still remains to be overcome, how to decide certainly whether they have sprung up independently alike in different lands through likeness in the human mind, or whether they have travelled from a common source. To show how difficult this often is, I may mention the latest case I have happened to meet with. The Orang Dongo, a mountain people in the Malay region, have a custom of inheritance that when a man dies the relatives each take a share of the property, and the deceased inherits one share for himself, which is burnt or buried for his ghost's use, or eaten at the funeral feast. This may strike

many of my hearers as quaint enough and unlikely to recur elsewhere; but Mr. Charles Elton, who has special knowledge of our ancient legal customs, has pointed out to me that it was actually old Kentish law, thus laid down in Law-French:—"Ensement seient les chateus de gaulekendeys parties en treis apres le exequies e les dettes rendnes si il y est issue mulier en vye. issi que la mort eyt la une partie, e les fitz e les filles muliers lautre partie e la femme la tierce partie."—"In like sort let the chattels of gavelkind persons be divided into three after the funeral and payment of debts if there be lawful issue living, so that the deceased have one part, and the lawful sons and daughters the other part, and the wife the third part." The Church had indeed taken possession, for pious uses, of the dead man's share of his own property; but there is a good Scandinavian evidence that the original custom before Christian times was for it to be put in his burial-mound. Thus the rite of the rude Malay tribe corresponds with that of ancient Europe, and the question which the evidence does not yet enable us to answer is, whether the custom was twice invented, or whether it spread east and west from a common source, perhaps in the Aryan district of Asia.

It remains for me to notice the present state of Comparative Mythology, a most interesting, but also most provoking part of Anthropology. More than twenty years ago a famous essay, by Professor Max Müller, made widely known in England how far the myths in the classical dictionary and the story-books of our own lands might find their explanation in poetic nature-metaphors of sun and sky, cloud and storm, such as are preserved in the ancient Aryan hymns of the Veda. Of course it had been always known that the old gods and heroes were in some part personifications of nature—that Helios and Okeanos, though they walked and talked and begat sons and daughters, were only the Sun and Sea in poetic guise. But the identifications of the new school went farther. The myth of Endymion became the simple nature-story of the setting Sun meeting Selene the Moon; and I well remember how, at the Royal Institution, the aged scholar, Bishop Thirlwall, grasped the stick he leant on, as if to make sure of the ground under his feet, when he heard it propounded that Erinyes, the dread avenger of murder, was a personification of the Dawn discovering the deeds of darkness. Though the study of mythology has grown apace in these later years, and many of its explanations will stand the test of future criticism, I am bound to say that mythologists, always an erratic race, have of late been making wilder work than ever with both myth and real history, finding mythic suns and skies in the kings and heroes of old tradition, with dawns for love-tales, storms for wars, and sunsets for deaths, often with as much real cogency as if some mythologist a thousand years hence should explain the tragic story of Mary Queen of Scots as a nature-myth of a beautiful Dawn rising in splendour, prisoned in a dark cloud-island, and done to death in blood-red sunset. Learned treatises have of late, by such rash guessings, shaken public confidence in the more

sober reasonings on which comparative mythology is founded, so that it is well to insist that there are cases where the derivation of myths from poetic metaphors is really proved beyond doubt. Such an instance is the Hindu legend of King Bali, whose austerities have alarmed the gods themselves, when Vâmana, a Brahmanic Tom Thumb, begs of him as much land as he can measure in three steps; but when the boon is granted, the tiny dwarf expands gigantic into Vishnu himself, and striding with one step across the earth, with another across the air, and a third across the sky, drives the king down into the internal regions, where he still reigns. There are various versions of the story, of which one may be read in Southey; but in the ancient Vedic hymns its origin may be found when it was not as yet a story at all, only a poetic metaphor of Vishnu, the Sun, whose often-mentioned act is his crossing the airy regions in his three strides. "Vishnu traversed (the earth); thrice he put down his foot; it was crushed under his dusty step. Three steps hence made Vishnu, unharmed preserver, upholding sacred things."

Both in the savage and civilized world there are many myths which may be plainly traced to such poetic fancies before they have yet stiffened into circumstantial tales; and it is in following out these, rather than in recklessly guessing myth-origins for every tradition, that the sound work of the mythologist lies. The scholar must not treat such nature-poetry like prose, spoiling its light texture with too heavy a grasp. In the volume published by our new Folk-Lore Society, which has begun its work so well, Mr. Lang gives an instance of the sportive nature metaphor which still lingers among popular story-tellers. It is Breton, and belongs to that widespread tale of which one version is naturalised in England as "Dick Whittington and his Cat." The story runs thus:—The elder brother has the cat, while the next brother, who has a cock left him, fortunately finds his way to a land where (there being no cocks) the king has every night to send chariots and horses to bring the dawn; so that here the fortunate owner of Chanticleer has brought him to a good market. Thus we see that the Breton peasant of our day has not even yet lost the mythic sense with which his remote Aryan ancestors could behold the chariots and horses of the dawn. But myth, though largely based on such half-playful metaphor, runs through all the intermediate stages which separate poetic fancy from crude philosophy embodied in stories seriously devised as explanations of real facts. No doubt many legends of the ancient world, though not really history, are myths which have arisen by reasoning on actual events, as definite as that which, some four years ago, was terrifying the peasant mind in North Germany, and especially in Posen. The report had spread far and wide that all Catholic children with black hair and blue eyes were to be sent out of the country, some said to Russia, while others declared that it was the King of Prussia who had been playing cards with the Sultan of Turkey, and had staked and lost 40,000 fair-haired, blue-eyed children; and there were Moors

travelling about in covered carts to collect them; and the schoolmasters were helping, for they were to have five dollars for every child they handed over. For a time the popular excitement was quite serious; the parents kept the children away from school and hid them, and when they appeared in the streets of the market-town the little ones clung to them with terrified looks. Dr. Schwartz, the well-known mythologist, took the pains to trace the rumour to its sources. One thing was quite plain. that its prime cause was that grave and learned body, the Anthropological Society of Berlin, who, without a thought of the commotion they were stirring up, had, in order to class the population as to race, induced the authorities to have a census made throughout the local schools, to ascertain the colour of the children's skin, hair, and eyes. Had it been only the boys, to the Government inspection of whom for military conscription the German peasants are only too well accustomed, nothing would have been thought of it; but why should the officials want to know about the little girls' hair and eyes? The whole group of stories which suddenly sprang up were myths created to answer this question: and even the details which became embodied with them could all be traced to their sources, such as the memories of German princes selling regiments of their people to pay their debts. the late political negotiations between Germany and Russia. &c. The fact that a caravan of Moors had been travelling about as a show accounted for the covered carts with which they were to fetch the children; while the schoolmasters were naturally implicated, as having drawn up the census. One schoolmaster, who evidently knew his people, assured the terrified parents that it was only the children with blue hair and green eyes that were wanted—an explanation which sent them home quite comforted. After all, there is no reason why we should not come in time to a thorough understanding of mythology. The human mind is much what it used to be, and the principles of myth-making may still be learnt from the peasants of Europe.

When, within the memory of some here present, the Science of Man was just coming into notice, it seemed as though the study of races, customs, traditions, were a limited though interesting task. which might after a few years come so near the end of its materials as no longer to have much new to offer. Its real course has been far otherwise. Twenty years ago it was no difficult task to follow it step by step: but now even the yearly list of new anthropological literature is enough to form a pamphlet, and each capital of Europe has its Anthropological Society in full work. So far from any look of finality in anthropological investigations, each new line of argument but opens the way to others behind, while these lines tend as plainly as in the sciences of stricter weight and measure, toward the meeting ground of all sciences in the unity of nature.

The following communication has been received from Prof. Ph. de Rougemont:—

NEUCHÂTEL.

19 Octobre, 1879.

La Direction du Musée de Neuchâtel offre à vendre les doublets de la collection d'objets lacustres de l'âge de la pierre provenant de la station d'Auvernier. Par les travaux faits pour l'abaissement des eaux du lac de Neuchâtel, toutes les stations lacustres ont été mises à sec, ce qui nous a permis de les exploiter sur une grande échelle et de livrer à des prix avantageux des séries d'objets soit pour Musées, soit pour l'enseignement dans les écoles supérieures. La vente de ces objets a pour but de couvrir les frais d'exploitation.

Liste d'objets lacustres de l'âge de la pierre, provenant de la station d'Auvernier.

- | | | |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| No. 1. | Hache en pierre polie avec son emmanchure en bois de cerf et son manche en bois. Le manche est fait d'après un original trouvé à Auvernier et conservé dans l'alcool. | La pièce, prix frs. 10 |
| No. 2. | Hache en pierre polie avec son emmanchure en bois de cerf | La pièce, prix frs. 7 |
| No. 3. | Haches en pierre polie, suivant la grandeur et la beauté | à frs. 5, 4, 3, 2 |
| No. 4. | Haches en Néphrite | à frs. 10 |
| No. 5. | Emmanchures de haches en bois de cerf. La pièce de frs. 3-5 | |
| No. 6. | Marteaux en pierre polie, achevés mais cassés en deux | La pièce frs. 5 |
| No. 6. | Ebauche de marteau non poli, perforé et cassé | La pièce frs. 5 |
| No. 7. | Boulons provenant du perforage de ces marteaux (très rares) | La pièce frs. 3 |
| No. 8. | Scies en silex | „ 4 à 5 |
| No. 9. | Pointes de flèche en silex | „ 8 à 10 |
| No. 10. | Poinçons en os de cerf | „ 3 à 4 |
| No. 11. | Fragments d'os aiguisés en ciseau | „ 3 à 4 |
| No. 12. | Pierre à aiguiser | frs. 5 |
| No. 13. | Pesons en terre cuite perforés | „ 5 |
| No. 14. | Pesons en terre cuite portant des dessins et perforés (Bronze) | frs. 4 à 5 |
| No. 15. | Pesons en pierre percée | fr. 1 |
| No. 15. | Torche en terre cuite pour porter les vases. | frs. 5 |
| No. 16. | Poteries de l'âge de la pierre et du bronze | |
| No. 17. | Cornes et machoires de cerf | frs. 5 à 6 |
| No. 18. | „ „ „ chevreuil | „ 3 à 4 |
| No. 19. | „ „ „ chèvre | „ 5 à 6 |
| No. 20. | Mâchoires de bœuf | „ 5 à 6 |
| No. 21. | Mâchoires infér de sanglier | „ 5 |
| No. 22. | Dent d'ours | „ 5 |
| No. 23. | Mâchoires de castor | „ 5 à 6 |

Les No. 3 et 5 comprennent les objets que nous possédons en grande quantité. Il nous serait possible d'en livrer une centaine.

Le No. 7 comprend des objets en pierre, cylindriques, quelque fois légèrement coniques, ayant la forme de petits bouchons et provenant du trou des marteaux.

THE JOURNAL
OF THE
ANTHROPOLOGICAL INSTITUTE
OF
GREAT BRITAIN AND IRELAND.

NOVEMBER 11TH, 1879.

EDWARD B. TYLOR, Esq., D.C.L., F.R.S., *President, in the Chair.*

The minutes of the last meeting were read and confirmed.

The Election of four new Members was announced—ALFRED TYLOR, Esq., F.G.S., Baron A. VON HÜGEL, Captain R. C. TEMPLE, GEORGE W. BLOXAM, Esq., M.A., F.L.S.

The following presents were announced, and the thanks of the meeting were voted to the respective donors:—

FOR THE LIBRARY.

From the MUSEUM.—Report of the Peabody Museum of American Archæology and Ethnology. Vols. I. and II.

From the EDITOR.—Matériaux pour l'histoire de l'homme, Nos. 1-5.

From the GOVERNMENT OF VICTORIA.—The Aborigines of Victoria. Vols. I. and II. By R. Brough Smyth.

From the SOCIETY.—Proceedings of the Royal Geographical Society. Vol. I, Nos. 7-11.

From the EDITOR.—Index Medicus. Vol. I, No. 5.

From the STATE BOARD OF HEALTH OF MASSACHUSETTS.—Tenth Annual Report, 1879.

From the AUTHOR.—Sun Pictures of Rocky Mountain Scenery. By Prof. Hayden, M.D.

From Prof. F. V. HAYDEN.—Birds of the Colorado Valley. By Elliott Coues. Part I., 1878. U. S. Geological and Geographical Survey of the Territories, 1876. Bulletin and Geographical Survey of the Territories. Vol. IV, Nos. 3 and 4.

- From the INSTITUTION.—Report of the Smithsonian Institution, 1877.
- From the INSTITUTION.—Smithsonian Miscellaneous Collections. Vols. XIII, XIV, and XV.
- From the ASSOCIATION.—Proceedings of the Central Ohio Scientific Association. Vol. I, Part I.
- From the COMMISSION.—First Report of U. S. Entomological Commission for 1877.
- From the ASSOCIATION.—Proceedings of the American Association for the Advancement of Science, 1877.
- From the SOCIETY.—Proceedings of the Royal Society. Vol. XXIX, Nos. 196, 197.
- From the SOCIETY.—Bulletin de la Société Impériale des Naturalistes de Moscow, No. 4, 1878, No. 1, 1879.
- From the BERLIN ANTHROPOLOGICAL SOCIETY.—Zeitschrift für Ethnologie, No. 2, 1879.
- From the SOCIETY.—Bulletin de la Société de Borda a Dax, No. 2, 1879.
- From the EDITOR.—The American Antiquarian. Vol. I, No. 3, 1879.
- From the INSTITUTION.—Journal of the Royal United Service Institution, Vol. XXIII, Nos. 100 and 101. Appendix to Vol. XXII.
- From INDIA OFFICE.—Buddha Gaya, the Hermitage of Sákya Muni. B. R. Mitra, LL.D.
- From the ASSOCIATION.—Journal of the Royal Historical and Archæological Association of Ireland. Vol. V, No. 37.
- From the SOCIETY.—Mittheilungen der Anthropologischen Gesellschaft in Wien. Band VIII, Nos. 5 and 6; Band IX, Nos. 1-3.
- From the INSTITUTE.—Proceedings of Royal Colonial Institute. Vol. X.
- From the SOCIETY.—Transactions of the Asiatic Society of Japan. Vol. VII, Part 3.
- From the SOCIETY.—Bulletin de la Société d'Anthropologie de Paris. Vol. II, No. 2.
- From Dr. PAUL BROCA.—Revue d'Anthropologie, No. 3, 1879.
- From the ACADEMY.—Bulletin of the Royal Academy of Copenhagen, Nos. 2 and 3, 1875; No. 1, 1876.
- From the AUTHOR.—Finska Kranien. By Prof. Gustav Retzius.
- From the SOCIETY.—Proceedings of the Royal Society of Tasmania for 1877.
- From the EDITOR.—Revue Scientifique, Nos. 1-19, 1879; and 40 and 42, 1873.
- From the ASSOCIATION.—Association Française pour l'avancement des Sciences, Nos. 22 and 23.
- Viestuik hrvatskoga Arkeologickoga Druztva, Godina I, Br. 1 and 2.
- Jahres-bericht des Naturhistorischen Nereins von Wisconsin, 1878-9.
- Literarische Mittheilungen der Akademie der Wissenschaften in Krakau. January, February, March, 1879.

- From the SOCIETY.—Proceedings of the Asiatic Society of Bengal, Nos. 2, 3, and 4, 1879.
- From the SOCIETY.—Journal of the Asiatic Society of Bengal, Parts 1 and 2, Nos. 222-3-4.
- From the EDITOR.—*Revue Internationale des Sciences*, Nos. 7-10, 1879; No. 22, 1878.
- From the SOCIETY.—Transactions of the Society of Biblical Archaeology. Vol. VI, Part 2.
- From the AUTHOR.—*Notices sur le Manuel de Voyageur*, Juin, 1879. By D. Kaltbrunner.
- From the SOCIETY.—List of Society of Antiquaries of London, 12 June, 1879.
- From the SOCIETY.—Proceedings of the Numismatic and Antiquarian Society of Philadelphia, 20 March, 1879.
- From the AUTHOR.—*Signes Runiques a l'age des Celtes*. By J. Park Harrison, Esq.
- From the AUTHOR.—*Betrothals and Bridals*. By W. T. Marchant. *Offenbacher Vereins für Naturkunde*, 17 and 18, Bericht.
- From Prof. HAYDEN.—Bulletin of U. S. Geological and Geographical Survey. Vol. V, No. 1.
- From Prof. HAYDEN.—Catalogue of Publications of U. S. Geological and Geographical Survey to December, 1878.
- From the AUTHOR.—*Mason's Marks*. By H. Rivett-Carnac, Esq.
- From the AUTHOR.—*Anglo-Israelism Refuted*. By R. Roberts. *Moniteur des Consulats*, No. 1.
- From the SOCIETY.—Journal of the Society of Arts, Nos. 1396 to 1407.
- From the SOCIETY.—Leeds Philosophical and Literary Society, Annual Report for 1878-9.
- From the ACADEMY.—*Atti della R. Accademia dei Lincei*. Vol. III, Fas. 7°.
- From the ACADEMY.—Bulletin de l'Académie Impériale de St. Petersbourg. Tom. 25, Fenil. 21-32.
- From the ACADEMY.—*Pamietuik Academii, Umiejetuosci W. Krakowie*, 1878.
- From the MANX SOCIETY.—Church Notes, Diocese of Sodor and Man. Vol. XXIX. By W. Harrison.
- From the EDITOR.—“*Athenæum*,” Nos. 620, 621, 622.
- From the SOCIETY.—Schriften der Physikalisch-ökonomischen Gesellschaft zu Königsberg, 1877, II; 1878, I, II; 1879, I.
- From the SOCIETY.—Proceedings of the Royal Asiatic Society. Vol. XI, Part 3.
- From the EDITOR.—*Archiv für Anthropologie*, July, 1879.
- From S. E. M. le President.—*Compte-rendu de la Commission Impériale Archéologique pour l'année 1876*. Avec un atlas.
- From Prof. AGASSIZ.—Bulletin of the Museum of Comparative Zoology at Harvard College, Mass.
- From the EDITOR.—*Bulletin du Mouvement Social*.
- From the ACADEMY.—*Rozprawy i Sprawozdania z Posiedzen*. Tom. V, 1878.

- From the ACADEMY.—Sprawozdanie Komisji Fizyograficznej, 1877.
- From the ACADEMY.—Zbiór Wiadomości do Antropologii Krajowej. Tom. III.
- From the EDITOR.—Tijdschrift voor indische Taal-Land-en Volkenkunde, XXV, 2.
- From the SOCIETY.—Notulen van de Algemeene en Bestuurs-Ver-gaderingen, XVI, 3, 4.
- From the SOCIETY.—Journal of the Royal Geographical Society. Vol. XLVII, 1878.
- From the ACADEMY.—Atti della R. Accademia della Scienze di Torino. Vol. XIV, Disp. 6 and 7.
- From the ASSOCIATION.—Proceedings of the Geologists' Association. Vol. VI, Nos. 1, 2, and 3.
- From the SOCIETY.—Transactions of the Royal Society of Literature. Vol. XII, Part 1.
- From the EDITOR.—"Nature," Nos. 512–523.
- From the EDITOR.—Revue Belge de Numismatique, 1879, Part 4.
- From the ROYAL ACADEMY OF COPENHAGEN.—Oversigt over del Kongelige Danske Videnskabernes Selskabs, 1879, No. 2.
- From the AUTHOR.—The Cause of Colour among Races. By William Sharpe, M.D.
- From the COUNCIL OF ROYAL COLLEGE OF SURGEONS.—Catalogue of Osteological Specimens in the Royal College of Surgeons' Museum. Part I, Man. By Prof. W. H. Flower.
- From the SOCIETY.—Transactions and Proceedings of the Royal Society of Victoria. Vol. XV.
- From the EDITOR.—Revue d'Anthropologie. Vol. XII, Part 4, 1879.
- From the SOCIETY.—Verhandlungen des Naturhistorisch Medicinischen Vereins zu Heidelberg.
- From the SOCIETY.—Proceedings of the Society of Biblical Archæology, November, 1878, to June, 1879.
- From the ASSOCIATION.—Report and Transactions of the Devonshire Association for the Advancement of Science. Vol. XI.
- From the AUTHOR.—Geology of the Provinces of Canterbury and Westland, New Zealand. By Dr. Julius Von Haast.
- From Miss BUCKLAND.—On the Origin of some American Indian Tribes. Extracted from the "Canadian Naturalist." By John Campbell, M.A.
- From the AUTHOR.—Psychometric Experiments. By Francis Galton, F.R.S.
- From the AUTHOR.—Di Alume Notizie riguardanti gli Organi Genitale Femminii Esterni. By D. P. Riccardi.
- From the AUTHOR.—Il Culto dell' acqua-Studii intorno alla Scienza della Religiosita. By D. P. Riccardi.
- From the AUTHOR.—Litolatria. By Dott. P. Riccardi.
- From the AUTHOR.—Studii intorno ad alumni crani Araucanos e Pampas. By Dott. P. Riccardi.
- From the AUTHOR.—Mélange de Géographie et d'Ethnographie. By M. le vicomte Flouriot de Langle.

From the AUTHOR.—*De la Notion de Race en Anthropologie.* By M. Paul Topinard.

From the SOCIETY.—*Proceedings of the Society of Antiquaries of London.* Vol. VII, No. 6.

From the Executors of Sir WALTER TREVELYAN, Bart. :—

Adam, Alexander—*Principles of Latin and English Grammar.*

Ainsworth, Robert—*Thesaurus Linguae Latinæ Compendiarius.* (2 copies.)

Bailey, N.—*English Dictionary.* (2 copies.)

Barlow, Peter—*Mathematical Dictionary.*

Bay, Christian Frederick—*English-Danish Dictionary.* 2 vols.

Bayle, Mr. Peter—*Historical and Critical Dictionary.* 5 vols.

Boudot, J.—*Latin-French Dictionary.*

Boyer's *Royal Dictionary.* (2 copies.)

Cooper, J.—*Thesaurus Linguae Romanæ et Britannicæ.*

Eton *Greek Grammar.*

Grose, Francis—*Dictionary and Glossary.*

Hedericus, Benjamin—*Greek Lexicon.* Edited by T. Morell.

Lempriere, J., D.D.—*Classical Dictionary.*

Lévizac, M. de—*French Grammar.*

Littleton, Dr. Adam—*Latin Dictionary.*

Jamieson, John, D.D.—*An Ethnological Dictionary of the Scottish Language.*

Johnson, Samuel—*Dictionary of the English Language.* 2 vols.

Mair, J.—*Introduction to Latin Syntax.*

Martinelli, Joseph—*French-Italian, Italian-French Dictionary.*

Morell, Thomas, D.D.—*Robert Ainsworth's Dictionary, English and Latin.*

Neilson, Rev. W.—*Greek Exercises.*

Neuman and Baretti—*Spanish and English Dictionary.* 2 vols.

Nolan, Frederick—*Introduction to Hebrew Grammar.*

Philips, Edward—*The New World of Words.*

Parkhurst, John—*Greek-English Lexicon to the New Testament.*

„ *Hebrew-English Lexicon.*

Picard, H.—*English-Dutch, Dutch-English, Dictionary.*

Raskins, R. K.—*Lexicon Islandicum.*

Ryercup and Krast—*Dansk-Norsk Literatur Lexicon.*

Scapula, J.—*Greek-Latin Lexicon.*

Schrevelius, Cornelius—*Greek-Latin Lexicon.*

„ *Greek-Latin, and Latin-Greek Lexicon.*

Serenius, Jacob, D.D.—*English and Swedish Dictionary.*

Simon, J.—*Hebrew and Chaldee Lexicon.*

Spurrell, D.—*Welsh Dictionary and Grammar.* 2 vols.

Thomasius, T.—*Latin-English Dictionary.*

Valpy's *Greek Grammar.*

Wolff, Ernst.—*Danish and English Dictionary.*

MR. BRABROOK, F.S.A., Hon. Secretary to the Anthropometric Committee, exhibited two albums of photographs collected by that body.

Colonel KINCAID read a "Report on the Bheel Tribes of the Vindhyan Range."

Mr. S. E. PEAL exhibited an interesting collection of Ethnological Drawings made in Assam.

The following paper was read by the Author —

On the RELATIONS of the INDO-CHINESE and INTER-OCEANIC RACES and LANGUAGES. By A. H. KEANE, Esq., M.A.I.

1. During the last few years the progress of discovery and of missionary labours has thrown much light on the numerous peoples inhabiting the south-east corner of the Asiatic Continent and adjacent islands. A decided impulse was naturally given to archæological and ethnological studies in Further India by the French occupation of Saigon, resulting in the exploration of the stupendous ruins scattered over the Cambojan and Siamese provinces of Ongkor and Battambang. An almost entirely new ethnical and archæological world has thus been revealed to science, and the time has long gone by since it could be said, with Barthélémy Saint Hilaire, that perhaps with the solitary exception of Burmah no part of trans-Gangetic India deserved the serious attention of the historian.* Camboja, of which little had hitherto been known beyond the name, associated as that was with the *gamboge* of commerce, has already entered the domain of contemporary science; the great temple of Ongkor Vâht and the ancient city of Ongkor Thôm have begun to supply inexhaustible materials to the antiquarian and archæologist; philology is already busy with the inscriptions in an almost unknown tongue and character covering the colossal blocks of freestone strewn over the region stretching west and north from the wooded shores of Tonlé-sap; and the ethnologist is now engaged in co-ordinating the information already accumulated regarding the Khmêrs, Sâm-rê, Kûys, Stiengs, peoples heard of now almost for the first time, but to whom a permanent interest attaches, as the recognised lineal descendants of the builders of those astounding monuments. To us, for the moment at least, they have a still greater interest, as possibly destined to supply the key to the difficult problems connected with the mutual

* "A l'exception peut-être du Birman les autres pays de l'Inde transgannique méritent à peine les regards de l'histoire." ("Journal des Savants" for August, 1861, p. 458.)

relations of all the Indo-Chinese and Inter-Oceanic peoples. From this point of view these primitive inhabitants of the peninsula have, however, scarcely yet been studied at all, and the present may claim to be a first serious attempt to show their true connection with the Indo-Pacific races.

2. The speculations hitherto advanced regarding the migrations and affinities of the so-called "Malayo-Polynesians" having all been formed independently of this indispensable factor, are necessarily crude and contradictory, and can be considered as at most but tentative. The various theories bearing on this subject may perhaps be reduced to three—those associated with the names of Humboldt, Crawfurd, and Wallace.

Humboldt adopted and popularised John Reinhold Forster's suggestion* that all the existing languages of the brown Oceanic races came of one original mother-tongue, which through time and isolation became divided into many dialects, and that all the peoples speaking them are of one and the same stock. To give expression to this assumed unity of race and speech the term "Malayo-Polynesian" was invented, a term which unfortunately still holds its ground, although, as will presently be seen, utterly at variance with ascertained facts, and conveying an absolutely erroneous idea of the true affinities of these peoples.

Crawfurd's theory, learnedly argued in the famous "Dissertation" accompanying his "Grammar and Dictionary of the Malay Language,"† is directly opposed to Forster's. Rejecting the supposition of a common original mother-tongue, he holds that within the Oceanic area "the distinct and independent tongues" are "innumerable,"‡ and that their connection with the Malay is merely verbal and due entirely to a comparatively recent spread of the Malay and Javanese influences westward to Madagascar, eastward to the Eastern Pacific Islands. The ethnical question he scarcely touches, troubling himself little with the possible affinities of peoples that may have nothing in common beyond a greater or less percentage of words borrowed from the leading

* Forster's words are: "But it would be highly inconclusive from the similarity of a few words to infer that these islanders (the eastern Polynesians) were descended from the Malays. I am, therefore, rather inclined to suppose that all these dialects preserve several words of a more ancient language, which was more universal, and was gradually divided into many languages now remarkably different. The words, therefore, of the language of the South Sea Islands, which are similar to others in the Malay tongue, prove clearly, in my opinion, that the South Sea Islands were originally peopled from the Indian or Asiatic Northern Islands." (Observations, "Voyage Round the World." London, 1778.)

† London, 1852.

‡ "Instead of considering all the languages within the wide bounds described as mere dialects of one tongue, the results of my own inquiry confirm me in concluding that they are innumerable." (P. 235.)

languages of culture in Malaysia. In this domain he assumes, in fact, the presence of several distinct brown besides the dark races.

In his classical work on "The Malay Archipelago,"* Alfred Russell Wallace propounds a theory which may, without exaggeration, be said to have taken anthropologists by surprise, and which has by most of them been always regarded as paradoxical.† After separating the Malay from the Papûan and connecting it with the Mongolian type, he proceeds to connect the large brown Eastern Polynesian race, not with the brown Malays, but with the black Papûans, thus overriding all the inductions of philology and ethnology alike. "It is to be especially remarked," he writes, "that the brown and the black Polynesian races closely resemble each other. Their features are almost identical, so that portraits of a New Zealander or Otaheitian will often serve accurately to represent a Papûan or a Timorese, the darker colour and more frizzly hair of the latter being the only difference. . . . I believe therefore that . . . the brown and the black, the Papûan, the natives of Gilolo and Ceram, the Fijian, the inhabitants of the Sandwich Islands, and those of New Zealand, *are all varying forms of one great Oceanic or Polynesian race.*"‡ In the "Australasia" of the Stanford series, edited by him in 1879, Mr Wallace still holds that the brown Polynesians are not only "quite distinct from the Malays," but, "except in colour, seem to have more affinity with the dark woolly-haired races of the Pacific," adding, however, a sort of saving clause to the effect that as it "now seems more probable," they "are equally distinct from both."§

My own view has already been roughly formulated in the monograph on "The Philology and Ethnology of the Inter-Oceanic Races," appended to the just quoted work on Australasia,|| and will here be more fully discussed. But it will be convenient first to make a few remarks on the foregoing theories, of which Forster's comes decidedly much nearer to the actual facts than either of the others. It seems in fact rather to err in falling short of, than in absolutely running counter to, the truth. It of course takes no account of the Asiatic element, the real significance of which could not possibly at the time have been foreseen. Hence the hypothesis of one original tongue and one original race subsequently differentiated into many

* London, 1868.

† It called forth, amongst others, a vehement protest and crushing rejoinder from the Rev. S. J. Whitmee, in the "Contemporary Review" for February, 1873.

‡ Pp. 591-2, of 5th Ed., 1874.

§ P. 261.

|| Pp. 592-659.

dialects and many peoples, such as we now find them, is necessarily inadequate and insufficient to account for the present known condition of things. The differences existing between the languages and the physical types of the brown races in the Oceanic area are far too varied and far too profound to be derived from one primitive language and from one primitive ethnical stock alone, and it will be seen that there are elements in the Malayan languages and races absolutely non-existent in those of the Eastern Pacific, while the Polynesians possess characteristics of type and speech which they could not have derived from the Malayan tongues and peoples as at present constituted.

This last remark indicates also the weak point in Crawford's theory. He rightly speaks of a linguistic element, common to all the brown peoples from Madagascar to Easter Island. But he is hopelessly astray in assuming that this common element is not organic, but of comparatively recent date and merely borrowed from the representative Malayan peoples of the Archipelago. It will be seen that this universal element is, on the contrary, fundamental, pre-historic, a joint inheritance, not subsequently derived by the Eastern Polynesians from the Malays, but coeval with the first dispersion, and preserved more faithfully by the eastern branch than by the present inhabitants of Malaysia.

Mr. Wallace also rightly separates the Malays from the Papûans and connects them with the Mongolian type. His startling assumption of "one great Oceanic race," of which Papûan and Tahitian are but "varying forms," he seems to have practically given up, though still evidently inclined to connect the Tahitian rather with the Papûan than with the Malay, while somewhat inconsistently adding that all are probably "equally distinct" from each other. But it will, I trust, be made evident that the Papûan differs quite as much from the Eastern Polynesian as it does from the Malayan type, and that a fundamental connection between the last two must be admitted. At the same time, to Mr. Wallace cannot be refused the merit of having been one of the first to recognise the Mongolian as an important factor in the problem. A principal aim of this paper will be to determine the real position not merely of the Mongolian but of the Asiatic element in a wide sense in relation to all the Inter-Oceanic races.

For the misleading and no longer defensible expression "Malayo-Polynesian"* I here substitute *Indo-Pacific*, as the

* As an ethnical designation, this term implies a race everywhere affected by Malayan elements. But it will be seen that there are no true Malay elements at all in Eastern Polynesia. Linguistically, there is less objection to the

collective name of all the brown Inter-Oceanic races. With Malayo-Polynesian must also go "Polynesian," a geographical rather than an ethnical term, embracing as it does "such fundamentally distinct types as, for instance, those of the Samoan and Solomon groups."* For it I have substituted, and the Rev. S. J. Whitmee† has accepted, the entirely new term *Sawaiori*‡ as the collective name of the large brown race exclusively inhabiting all the Eastern Polynesian islands east of a line drawn from New Zealand through Samoa to Hawaii inclusively. *Sawaiori* therefore here takes the place of the vague "Polynesian" and still more vague "Kanak,"§ as well as the singularly infelicitous "Mahori" of Mr. W. L. Ranken. The mere mention of this conflicting nomenclature is a good illustration of the confusion still prevalent regarding the mutual relations of these races.

4. Coming to the practical question at issue, I hold that:—

I. Both of the Great Asiatic types conventionally known as Caucasian|| and Mongolian have from prehistoric times occupied the Indo-Chinese peninsula.

term; but even in this sense it is not very satisfactory, especially as this family must now be extended so as to include a whole group of languages spoken in Further India, as fully explained further on.

* Stanford's "Australasia," p. 596.

† In paper on "Polynesian Nomenclature," read at the Anthropological Institute, January 7th, 1879.

‡ Composed of *Sa*=first syllable of *Samoa*; *wai*=second syllable of *Hawaii*; and *ori*, last syllable of *Maori*; these being three of the most representative Eastern Polynesian groups.

§ From *Kanaka*—man, people, now written by the French *Canaque*, and by them and others applied indifferently to the Melanesians, New Caledonians, and brown Tahitians, Hawaiians, &c., hence no longer available as an accurate ethnical term.

|| It need scarcely be said that these terms are here used *faute de mieux*, and in the purely conventional sense in which they are used in scientific works. In this paper, however, *Caucasian* receives a wider extension than has hitherto been given to it. But it will be seen that this extension was unavoidable, unless we are needlessly to assume the development in two independent centres of two types practically identical in form. To me, at all events, it seemed more reasonable to suppose the gradual diffusion of one than the independent development of two such types. Besides, the French Anthropologists have already freely applied the term *Caucasian* and even *Indo-European* to the Non-Mongol races of Indo-China (see note *, p. 261; note †, p. 262), and as the object of this paper is to connect these Non-Mongol races through the Malaysians with the Eastern Pacific Islanders, the further extension of *Caucasian* to the whole Oceanic area was necessitated by the very nature of the case. No doubt the Oceanic peoples in question are of a brown complexion, whereas the typical Caucasian is fair. But the transition from *fair* to brown or dark is conceivable, and has been realised by the Aryans in India, who are darker than any of the Non-Mongol Indo-Pacific peoples. In other respects there is no essential physical difference between the Western Caucasians, the Non-Mongol Indo-Chinese tribes, the "Indonesians" of Malaysia and the Eastern Pacific Islanders. For the anthropologist they are fundamentally one race, and ought therefore to be grouped collectively under some one general designation. In the absence of a better, *Caucasian* is here retained and extended. On the question of colour, de Quatrefages well observes: "The colour of the skin depends upon a

- II. The brown races of Malaysia consist exclusively of these two elements variously intermingled, the Caucasian forming everywhere the substratum.
- III. The large brown race of Eastern Polynesia (our Sawaiori) consists exclusively of the Caucasian element.
- IV. The Negritos, the true Autochthones of Indo-China and Western Malaysia, have been almost everywhere rather supplanted than absorbed by the Caucasians and Mongolians.
- V. The Papûans, the true Autochthones of Eastern Malaysia and Western Polynesia, have been rather absorbed than supplanted, the fusion producing the Melanesians in the east, the so-called "Alfuros" in the west.

5. Let me state at once that of this somewhat formidable array of propositions, the last two have been introduced merely to complete the picture, as our attention will be occupied chiefly with the relations of the brown and yellow races to each other. If their mutual affinities can be determined, the position of the dark races will present no serious difficulty. For it will not be denied that these dark autochthonous races play on the whole a passive rather than an active part in the conflicting waves of migration going on throughout long historic and prehistoric epochs. The movements of population have undoubtedly been first southwards from the Asiatic mainland, then from the Archipelago eastwards to the Pacific. The lighter races have thus everywhere been the aggressors, successively invading and mostly extirpating* the Negritos in Western Malaysia, but generally intermingling with the Papûans in the east.

6. It will be noted that no room is here left for an independent Malay stock, and it will be one of the objects of this paper

simple secretion which is subject to modification under a number of circumstances, as is the case with many others. There is, therefore, nothing strange in the fact that some human groups, differing widely in other respects, should resemble each other in the matter of colour. This is the reason why the Hindu (*Āryan*), the Bishares [Beja, a Hamite race north of Abyssinia] and the Moor (*Semitic*), although belonging to the *white race*, assume the same, and even a darker hue than the *true negro*. It also explains the fact that the colour of the negro approximates in certain cases to that of peoples belonging to the white stock, who are more or less of a brown colour, or assumes a hue which exactly recalls that of the yellow races. Thus in man as in animals, the aphorism is verified which was formulated by Linnæus in regard to plants: *nimum æ crede colori*." ("Human Species," 1879, p. 50.)

* That the Caucasians did not amalgamate with the Negritos seems evident from the fact that there are no half-caste Negrito types in the western, as there are half-caste Papuan types in the eastern islands of the Archipelago. Why they did not amalgamate may perhaps be explained by the extremely low and debased physical condition of the Negritos. Compare De la Gironnière's account of the Philippine Negritos: "Les hommes me paraissaient plutôt une grande famille de singes, que des créatures humaines." ("Aventures d'un gentilhomme breton aux îles Philippines." Paris, 1855, p. 321.)

to show that, for science, there is no organic Malay type. Being, as I believe, the result of known compound elements, Malay, like Keltic, Teutonic, Aryan itself, is essentially a national and linguistic, not a racial designation.

7. Of the presence of two distinct types in Further India, there can no longer be the shadow of a doubt. That the great bulk of the people—Burmese, Siamese, Laos, Annamese, belong to one stock; the Mongolian—and that they are monosyllabic in speech, are accepted facts needing no demonstration. The existence of another race of a different type, mainly occupying the mountain range west of Annam, and merging northwards in the Yunnan highlands, was also known from the earliest times. Repeated allusion is made to such a race in the Chinese records as far back as those of the Thang epoch, and the earliest European writers, Barros, Christoval de Jaque and others, carefully distinguish the two types. It is moreover very remarkable that both the Chinese and the European observers refer to a fair and even *white* element in this highland region.* But it was reserved for recent French explorers—those especially associated with the memorable expedition up the Me-Khong River in 1866-68—to identify this lighter, non-Mongol element with the Caucasians of the west. Their new political conquest of Cochin-China has thus led to a new scientific conquest of far-reaching consequence in the present inquiry—the discovery of a large ethnical family in the extreme south-east corner of Asia, which may be regarded as a detached branch of the great Caucasian stock, whose original home seems to have been the Iranian table-land.

8. Of this family, some branches have long been settled and civilised, while others are still living in the tribal state. Typical of the former are the Cambojans or Khmêrs, as they now call themselves, forming the bulk of the present kingdom of Camboja and neighbouring Siamese provinces of Ongkar and Battambang. Typical of the latter, are the Stiêngs, Charays, Chams, and Sûe, occupying the region between the left bank of the Mekhong, and the Annamese frontier, and all closely related to the Cambojans.† Great confusion has been caused by the multiplicity of terms vaguely applied by careless writers to these hill tribes; hence it may be well to explain that they are all collectively known to the Annamese as *Moïs*; to the Siamese and Laos as *Khás*; to the Cambojans as *Penong* or *Penom*; to the Chinese as *Lolo*; words meaning little more than “wild” or “savage” in those

* Thus Christoval de Jaque tells us that the Cambojan ladies of rank “sont laanches et belles.” And the Chinese annals allude to the white women found amongst the dark inhabitants of Chin-la.

† “Fort analogues aux Cambodgiens.” Dr. Harmand in “*La Nature*,” for September 8, 1877.

languages respectively. Thus the Chinese speak of the white,* black,† raw,‡ and cooked§ Lolos; the Annamese of the Moï Dalan, Moï Da-watch, Moï Da-ratch, Moï-hoti, Moï-baria; the Siamese of Khas-kho, Khas-kuy, Khas-mi, Khas-meu-tse, etc., qualifying the general term by particular designations, according to circumstances. They themselves, as a rule, strongly resent such epithets, and have, of course, their own proper tribal names; the most important, besides those above mentioned, being the Banhars, Kuys (of whom there are many branches), Cedangs, Hadrongs, Proûs, Khmûs, Candios, Banams, Sâmre, Xongs, Piâks, Lawas, Lemets, and Mûangs. Some of these, such as the Chams and Kuys, do not properly come within the category of tribal races at all; for the Chams at one time formed a powerful settled community in the present province of Binh-thuan, south-east corner of Annam, while the Kuys are regarded by the Cambojans as representing the primitive Khmêr stock, hence are by them known as the *Khmêr-dom*, that is, "original Khmêrs"—the Khmêrs of the grand epoch in Cambojan history, which saw the rise of those marvellous architectural creations already alluded to.

9. But all alike, whether nomad or settled, have two points in common. They belong to a physical type essentially different from the Mongolian, and allied to the Caucasian and Malay-sian;|| and they all speak polysyllabic languages, "iacto tono," also allied to the Malaysian.

10. In his otherwise faulty classification of the Indo-Chinese races,¶ Dr. Thorel divides the non-Mongolian element into two branches; a dark and a brown; the first of which he calls "Malayo-Polynesian;"** the second "Caucasian." But the distinction is not fundamental, the two branches differing little from each other, except in the various shadings of their complexion, which is described as passing successively from fair and even white to light brown, and dark as we descend from the Yunnan highlands, southwards to the Mekhong delta. These savages, he remarks, are allied to two distinct races, presenting in the south the Oceanic type, while in the north connecting themselves "with the Caucasian, or more correctly with the

* Pè-Lolo.

† He-Lolo.

‡ Sen-Lolo.

§ Shu-Lolo.

|| *Malaysian*, not *Malayan*. The importance of the distinction will become apparent further on.

¶ In "Notes Anthropologiques" appended to 2nd vol. of the "Voyage d'Exploration en Indo-Chine," 1866-8, edited by Francis Garnier, Paris, 1873, pp. 289-320.

** "Race noire ou Malayo-Polynésienne," and "Race brune, ou rameau noir de la Race Caucasique." (*Ibid.*)

Indo-European populations.”* Here therefore we have the connection between the Western Caucasian (“Indo-European”), Indo-Chinese, and Oceanic stocks for the first time formulated in scientific language.

11. The ethnological description of the Yunnan and Cochin-Chinese aborigines corresponds entirely with this view. Sinking minor details, they are broadly described† as a fine, vigorous race, with symmetrical and well-set frames; stature rather above the middle size, straight profile, oval face, dolichocephalous head, high forehead, retreating very slightly, black hair, often inclining to brown, straight or wavy, and elliptical in section, beard and whiskers well furnished and always frizzled, or at least wavy, eyes perfectly straight and horizontal, nose not particularly prominent, but nearly always straight, and never flattened at the root, cheek-bones scarcely if at all prominent, mouth of medium, and even small size, with moderately thick lips, but no trace of prognathism, complexion mainly of a bistre or brown colour, but varying as above, though never so dark as that of the Aryans of India. This, *mutatis mutandis*, is on the whole a very fair picture of the ordinary European type, and the very opposite of the Mongolian. But there is one point which to me seems decisive—THEY HAVE GOT EXPRESSION; “energetic features,” says Thorel, “but without ferocity or hardness, and FAR MORE EXPRESSIVE THAN WITH THE MONGOLIANS.” We know, of course, that one Chinese or one Kalmuck can be distinguished from another, just as the shepherd is able to distinguish one sheep from another. But one of the most marked differences between the Mongolian and Caucasian types is assuredly the lack of expression in the former, while one of the most striking characteristics of the numerous heads of aborigines figured in the large Atlas accompanying Garnier’s work is the play of

* “Dans le nord ils se relient à la race Caucasique, ou plus exactement aux peuples Indo-Européens.” (*Op. cit.* p. 290.)

† Some of Thorel’s expressions are: “Grands et vigoureux; épaules larges; taille dessinée, membres bien proportionnés; jambes très droites, mollets bien placés et très-développés; teint moins noir que chez les Hindous; profil droit; visage ovale; front assez haut, droit peu fuyant; barbe noire bien fournie, toujours frisée ou en moins ondulée; ou en observe sur les côtés du visage; yeux horizontaux; nez ni large ni plat à la racine; pommettes très-peu prominents; bouche de grandeur moyenne; lèvres peu épaisses jamais prognathes; PHYSIONOMIE ASSEZ ÉNERGIQUE SANS FÉROCITÉ NI DURETÉ, BEAUCOUP PLUS EXPRESSIVE QUE CHEZ LES MONGOLIQUES.” (*Op. cit.*, *passim*.) Compare this with the ordinary Malay type: low stature, oblique eyes, high cheek bones, black hair (long and lank), olive-yellow or brown complexion. “Die Malaien sind im Allgemeinen hellere, gelbliche und braunliche Menschen, mit langem straffen schwarzen Haar, kleiner Statur, etwas schiefstehenden Augen und hervorragenden Backenknochen.” (Dr. A. B. Meyer’s “Minahassa Auf Celebes.” Berlin, 1876, p. 7.) And with the “Pre-Malay,” “Indonesian,” or sub-Malay type of the Archipelago, as described elsewhere.

expression, the animation, and especially the individuality stamped upon so many of them.

Dr. Thorel connects the more southerly hill-tribes not with the brown but the dark Oceanic stock, though his language on the point is extremely vague. "In the south," he says, "they present the Oceanic or Australian type, and belong to the group of the Alfouros of writers."* It is difficult to see what is here meant by "Oceanic," which seems to be spoken of as synonymous with Australian and "Alfouro." But Alfouro, though not an ethnical or racial name at all,† meaning in the Archipelago, little more than non-Mohammedan, wild or pagan, is understood to apply most commonly to the mixed Papuan peoples of Ceram, Gilolo, Floris, Timor, Mysol, etc., who have nothing in common either with the Australians or the Indo-Chinese hill tribes. Their great characteristic is woolly hair, and woolly hair occurs nowhere in India or Further India except amongst the Negrito Samangs of Malacca, who are not here in question. Dr. Harmand,‡ replying to a remark at a meeting of the French Anthropological Society, to the effect that the Mois were said to have woolly hair, said he was not aware that woolly hair had ever been spoken of in Indo-China; and Topinard added: "I know no case of woolly hair in India." Hence Thorel's theory falls through, and the affinities of the Indo-Chinese aborigines are, as stated, not with the dark Papûans, but with the brown and olive-brown Malaysians. No doubt A. Maurice mentions the "*cheveux frisés*" of the Banhars. But read in the light of the types figured in Garnier's Atlas, this expression evidently means nothing more than "wavy," and seems by many French ethnologists to be used as practically synonymous with "*ondulé*," an epithet perfectly applicable to the Caucasian, but not to the Mongolian stock. The hair of the Piâks, Dr. Harmand describes, as "*gros, ondulés, noirs à reflets roussâtres*,"§ the ruddy hue being specially remarkable, and

* "Dans le sud ils présentent le type Océanien ou Australien, et appartiennent au groupe des Alfouros des Auteurs." (*Op. cit.* ii, p. 295.)

† "Ich vermeide mit Absicht die irreleitende Bezeichnung 'Alfuren.'" (Dr. A. B. Meyer, "*Reise Nach Neu-Guinea*," p. 18.) And at p. 23, "Dieser Name ist in keiner Weise zu adoptiren und ist nur dazu angethan, wenn man ihn weitergebraucht, noch mehr Verwirrung hervorzurufen bei der Betrachtung der Bewohner des Indischen Archipels, als er bis jetzt schon hervorgerufen hat und noch täglich hervorruft."

‡ A. Hovelacque: "Quant au Mois, on a dit qu'ils avaient des cheveux laineux." To which Dr. Harmand says: "Qu'il ne sache pas qu'on ait jamais parlé de cheveux laineux dans l'Indo-Chine." Topinard: "Si les cheveux laineux n'existent pas dans l'Indo-Chine, s'il n'y en a pas trace, alors je ne comprends plus rien à la doctrine Négrito . . . Je ne connais pas d'exemple de cheveux laineux dans l'Inde." ("Bul. de la Soc. d'Anthropologie," 1878, p. 36.)

§ "La Nature" for September 8, 1877.

corresponding exactly with what we read of the fairer types—Battas, Pasumahs, etc., in Malaysia.

12. Some of the tribes have been visited and described more fully, but always with the same general results. Thus Dr. A. Maurice* gives us a long account of the Banhars, who, he says, are above the middle size, with straight but sometimes wavy hair, eyes very slightly if at all oblique, ruddy complexion, etc. The Charays, who are closely akin to the Khmêrs, C. E. Bouillevaux speaks of as "WHITE SAVAGES of CAUCASIAN TYPE."† The same writer, who spent many years evangelising these tribes, replies to some of the savants of the Mekhong expedition who had hastily confused the Khmêrs with the Annamese, that "there are assuredly enormous differences between these two peoples in the physical, mental, linguistic, religious, and other respects.‡ He looks on the hill tribes as the true aborigines, for thousands of years occupying the forests and mountains of Indo-China," and thinks that all the country from Cape St. James northwards to the Chinese province of Quang-tong was originally inhabited by a people akin to the Malaysians. He even goes so far as to regard the substratum of the Annamese as originally connected with the Oceanic stock, though afterwards profoundly modified by the Chinese (Mongolian) element.§ And in this connection it is worth while noting that the western branch of the Kùys (Khmêrdom) in the present Siamese province of Battambang are known to their Laos neighbours by the name of Maloh, a word curiously suggestive of Malay.

13. A further step towards affiliating the Indo-Chinese Caucasians with the Oceanic peoples is made by the distinguished naturalist, Henri Mouhot,|| who connects the Northern

* In "Revue d'Anthropologie" for October 15, 1878: "Yeux très-peu obliques sinon tout-à-fait droits; cheveux quelquefois frisés, teinte rougeâtre," &c., *passim*.

† In "l'Annane et le Cambodge," Paris, 1874: "Des savages blancs à type caucasique." (P. 155.)

‡ "Il y a assurément des différences énormes entre ces deux peuples au physique, au moral, sous le point de vue linguistique, religieux, etc. (*Op. cit.* p. 201.)

§ Les Annamites seraient selon nous un peuple se rattachant par l'origine à la race malaise, mais profondément modifié par l'élément chinois. (*Op. cit.* p. 200.) So also Hovelacque: "L'élément malais tient beaucoup de place chez eux." ("Bull. de la Soc. d'Anthropologie," 1877, p. 35.)

|| In his "Voyage dans les Royaumes de Siam, de Cambodge, de Laos, &c." Paris, 1868. "En somme, toute cette population, hommes, femmes et enfants, me rappelait les types du nord de la Polynésie, tels qu'ils sont représentés dans les grandes publications de nos marins français de 1820 à 1840. Certes, s'il avait été donné à l'illustre Dumont d'Urville d'explorer les rives du Mékong, il aurait été fixé sur les origines des Carolins, des Tagales de Luçon et de ces Haraforas de Célèbes, qui lui ont apparu comme les ancêtres des Tongas et des Tahitiens." (P. 326.)

Polynesians with the natives of the Luang-Prabang highlands, in whose midst his brief but brilliant career was brought to a premature close. After remarking on their athletic frames and Herculean strength, he observes that "all these populations, men, women, and children, recall the types of the Northern Polynesians such as they are figured in the large publications of our French navigators from 1820 to 1840. Had the illustrious Dumont d'Urville had the opportunity of exploring the banks of the Mekhong he would have assuredly made up his mind as to the origin of the Caroline Islanders, of the Tagalas of Luzon, and of those 'Haraforas' of Célèbes who seemed to him to be the ancestors of the Tongans and Tahitians."

14. But independently of authorities, statements, and descriptions, we need but compare the pictures of a Cambojan Stiêng and a Sumatran Batta, as figured in the works of Von Rosenberg and Mouhot (pp. 161 and 56), to recognise the identity of the two types, and their radical difference from the Mongolian, as illustrated by the portraits of the first and second kings of Siam, and of the Raja of Gorgontalo in the island of Célèbes. These figures also clearly show the difference between the two Malaysian types, Malay proper and sub-Malay (of which more further on), while the Rajah affords a striking commentary on the passage in Wallace's "Malay Archipelago," where he connects the Malays with the Mongolians:—"The Malayan race, as a whole, undoubtedly very closely resembles the East Asian populations from Siam to Mandchouria. I was much struck with this when in the island of Bali I saw Chinese traders who had adopted the costume of that country and who could then hardly be distinguished from Malays; and on the other hand, I have seen natives of Java who, as far as physiognomy was concerned, would pass very well for Chinese."*

15. With the kings of Siam may also be compared their contemporary the present King of Camboja (Mouhot, p. 124), each typical of his race, and the latter showing such a profound divergence from the Mongolian, and such a decided approach to the regular features of the Caucasian type. But a still more instructive lesson may be derived from a comparison of the present King of Camboja with the famous statue of Bua-Sivisithiwong, the leprous king, according to one tradition builder of the mighty temple of Ongkor-Vâht. If there is a certain unmistakable Hindu touch in the statue, due of course to the Buddhist origin of Cambojan civilisation, it is at all events an Aryan-Indian type obviously grafted on to a kindred

Cambojan stock. In this respect it fully bears out Mouhot's* remark that most of the bas-reliefs on the Ongkor monuments have a striking resemblance to the features of the present Cambodian populations, same regular features, long beard, and even their very dress, arms, and musical instruments. Garnier also recognised in these bas-reliefs various types of the savage tribes of Further India.† Here, therefore, we have the most emphatic testimony to the connection of the present Khmêrs and Khmêr-doms with the builders of those monuments, and unquestioned proof of the unbroken continuity of the Cambodian type throughout the historic period on this spot. But there are no records or traditions of their arrival in Further India as there are of the eruption of the Annuamese and other Mongolian peoples. Consequently the Khmêrs, that is the Caucasians, must be regarded as the first occupants of Indo-China, at least as far south as Malacca.

16. And here it should be remembered that the ancient Cambodian Empire, said to have embraced one hundred and twenty provinces, occupied the whole region from the Gulf of Tongkin to the Gulf of Siam, stretching for an unknown distance northwards. Here the Khmêr race came in contact with the Mongolian hordes now pressing down through the valleys of the great rivers, while in Malacca they were undoubtedly preceded by the Negritos, who were probably in possession of this region while still geographically connected with the Archipelago. At least, it seems difficult to suppose that the Negritos could have reached Malacca by sea, either from the Philippines or Andaman Islands, for even now none of these Samang tribes have even a rudimentary knowledge of navigation. Hence their present distribution at these distant points is a strong confirmation of Wallace's view regarding the former connection of the Archipelago with the mainland. And this consideration in its turn removes any difficulty there might be in explaining the arrival first of the Khmêrs and then of the Mongolians in Malaysia. Many other circumstances in any case require us to assume that these migrations took place at extremely remote periods, when all may, in fact, have still been dry land, and before the present Archipelago had been created by the slow subsidence still going on in those regions.

* "En visitant les ruines d'Ongkor nous avons été singulièrement étonnés de retrouver dans la plupart des bas-reliefs de leurs monuments des traits frappants de ressemblance avec le type du Cambodgien et celui de ces sauvages. Régularité ou visage, longue barbe, étroit langouti, et, chose caractéristique, à peu près mêmes armes et mêmes instruments de musique." (*Op. cit.* p. 214.)

† "Au-dessus sont représentées diverses scènes ou l'on reconnait différentes types des tribus sauvages de l'Inde-Chine." (*Op. cit.* vol. i, p. 53.)

17. The conclusions of the French savants* are strengthened by a comparison of the habits and usages prevalent amongst the Indo-Chinese and Malaysian peoples. On this subject a paper was read at the Anthropological Institute, on April 17, 1879, by Colonel Henry Yule,† who mentioned such common practices as the following, some of which, taken by themselves, might not prove much, but when taken in connection with so many other points of resemblance they go far to establish a close affinity between the continental and insular populations:—

Aversion to milk as an article of diet.

Love of putrescent fish.

Extravagant enlargement of the ear-lobe.‡

The fashion of covering the teeth with a case of gold prevalent from Western Yunnan to the Islands of Timor, Sumatra, and Célèbes.

Head-hunting common to the Kukis, Nagas, and Garos of the Assam Highlands, and to the Bornean Dyaks and Turajas of Célèbes.

Cock fighting.§

Barrack houses occupied by many families in common (Singphos, Mishmis, and Mekirs of the Assam border; Bornean Dyaks of Lundu River, who build houses over 500 feet long).

Pile-building practised, not only as a protection against damp in swampy ground, but in the Arracan and Burmese Highlands, by Karens,|| Banhars, Khmêrs, Borneans, Sundanese of Java, etc.

Husband entering wife's family (Khasia, Piâks, Java, Dyaks).¶

Father exchanging his own for his child's name (Khasia and throughout the Archipelago).

Counting by numeral auxiliaries, such as head in English, mann in German; twenty head of cattle; Zwölf mann soldaten.

Subjoined are a few specimens of such numeral collectives in Burmese, Shan, and Malay:—

* To whom may now be added Mr. Charles F. Tremlett, British Consul at Saigon, who, in his recent report on the trade of Cochin-China, remarks that in appearance, speech, and most other characteristics the *Cambojans differ entirely from the Chinese, Annamese, Siamese, etc.* He also refers to the Malay affinities of the Annamese mentioned in note, p. 264.

† See p. 290.

‡ Mentioned by Marco Polo.

§ Of the Khmêr, Garnier remarks, "Il se plaît au combat de coqs." (*Op. cit.* vol. ii, p. 109.)

|| "Les maisons sont toutes bâties sur des pilotis habituellement hauts de trois ou quatre pieds." (A. Maurice, *loc. cit.*)

¶ Of the Piaks, Dr. Harmand writes: "Après le mariage le jeune homme demeure dans la maison des parents de sa femme." ("La Nature," *loc. cit.*)

Burmese.

Oos, chief, first ; for kings, divinities, priests.
 Yauk, male ; for rational beings not divine.
 Gaung, brute beast ; for irrational beings.
 Pya, superficial extent ; for dollars, countries, dishes, etc.
 Lun, rotundity ; for eggs, loaves, bottles, cups, fingers, etc.
 Tseng, } extension in a straight line ; for roads, lines,
 Gyaung } spears, etc.
 Tsi ; for beasts of burden.
 Tshu ; for deities, pagodas, etc.
 Pa ; for people of rank.

*Shan.**

Kau, human beings.
 To, animals.
 An, inanimates.
 Kan, flowers.
 Lak ; fruits, cups.
 Hsu ; deities, pagodas.
 Hpeun ; books, mats.
 Mak ; knives, needles, hoes.
 Lang, buildings.

Malay.†

Âlai ; leaves, grasses, hairs, feathers.
 Batang ; trees, logs, spars.
 Biji ; corn, seeds, pebbles, gems, eggs, etc.
 Buwah ; fruits, loaves, cakes, mountains, countries.
 Ekor ; beasts, birds, fishes, reptiles.
 Ôrang, human beings.
 Puchuk ; cannon, candles, torches, etc.
 Ex. gr. :—Ada *saôrang* saudagâr kapâda *sabuurah* nagri—
 there was one-man merchant in one-fruit country.

18. This brings us to the philological argument, the importance of which was clearly seen, though not worked out by Francis Garnier, who did not hesitate to say that "the modern Cambojan establishes a transition between the polysynthetic language of the Sunda Islands and the monosyllabic languages of the peninsula."‡ Unfortunately the inquiry into the con-

* Rev. J. N. Cushing's "Grammar of the Shan Language," Rangoon, 1871.

† Crawford's "Malay Grammar and Dictionary," London, 1852.

‡ "Le Cambodgien moderne établit une transition entre la langue polysyllabique des îles de la Sonde et les langues monosyllabiques de la péninsule." (*Op. cit.* vol. i, p. 110.)

nection between these two linguistic groups has been obstructed or arrested partly by Garnier himself, partly by the death of Janneau in the midst of his Khmêr studies. Since this event little seems to have been done beyond the publication by E. Aymonnier* of a valuable Khmêr dictionary, accompanied by some grammatical notes based on Janneau's interrupted labours. On the other hand, inquiry was discouraged by Garnier, who lacked the true philological instinct, and who incautiously declared that Khmêr was a monosyllabic language,† which would remove it from the Caucasian, to which it really belongs, and affiliate it to the Tibeto-Chinese, with which it has no more than a verbal connection. The mistake was corrected by C. E. Bouillevaux,‡ but Khmêr is still generally supposed not only to be monosyllabic, but also to be spoken "vario tono," that is, with the intonations exclusively characteristic of the Tibeto-Chinese family. It cannot therefore be too emphatically asserted that Khmêr has no fundamental relationship to the toned monosyllabic tongues, that it is polysyllabic, spoken *recto tono*, like all Caucasian and Malaysian languages, and that its organic affinities are on the one hand with the languages of the Indo-Chinese Caucasian aborigines, on the other with the Malaysian linguistic groups, thus serving, as Garnier remarked, as the connecting link between the continental and Oceanic forms of speech.

19. The link could be furnished only by such a language as the Khmêr, because throughout the entire Oceanic area there is not a trace either of monosyllabism or intonation. This becomes all the more surprising when we remember that Malaysia, as above made evident, has been largely peopled by the Mongolian, as well as by the Caucasian races; and the Indo-Chinese branch of the Mongolians, with which alone we are here concerned, speak monosyllabic toned languages. But the explanation seems to be afforded by the order in which the migrations took place. We have seen that the Caucasian Khmêrs were the first to reach Further India, where they may be regarded as the true aborigines, and that the Mongolian, Annamese, Burmese, Siamese, etc., were later intruders from the north and the north-west. Now my contention is that the Caucasians were also the

* "Dictionnaire Khmêr-Français." Saigon, 1874 (lithographed). There is also a dictionary by Moura, which I have not seen.

† "Son génie est à coup sûr monosyllabique." (*Op. cit.* vol. i, p. 111.)

‡ In "L'Annam et le Cambodge" (Paris, 1874), where he clearly shows that Khmêr is not monosyllabic or *toned*, like the Annamese, Siamese, Chinese, &c.; but polysyllabic and spoken *recto tono*, like the Malaysian languages (pp. 102-8.) Abel Hovelacque also has clearly recognised its true character. "L'ethnographie des Cambodgiens est aussi obscure que leur langue. On a voulu ranger celle-ci parmi les idiomes monosyllabiques mais elle n'a pas la grande caractéristique de ceux-ci. à savoir LE SYSTÈME DES INTONATIONS." ("Bul. de la Soc. d'Anthropologie," 1877, p. 35.)

first to reach Malaysia, driven southwards in fact by the pressure of the Mongolians from the north. This is the natural sequence, and this is the condition of things required by the state of the Malaysian languages. The polysyllabic speaking Khmêrs were everywhere in possession of the field when the monosyllabic speaking Mongolians also reached the Archipelago. But the two linguistic systems are absolutely irreconcilable;* hence when settling in the islands, and amalgamating, as we know they did, with Caucasians, the Mongolians were fain to lay aside their peculiar speech, and adopt that of those in possession of the land. Crawford opportunely remarks that "the Chinese have been settled in great numbers throughout the Archipelago for many centuries, and intermarry with the native inhabitants; yet there are certainly not a dozen words of the Chinese language in Malay, Javanese, or any other native tongue of the Archipelago."† So also with the Siamese, who, though conterminous with the Malays at the north frontier of Malacca, "have not adopted half a dozen words of Malay, and the Malays no Siamese words at all."

We find therefore that in Malaysia, as almost everywhere else, the ethnical elements are mixed—Caucasian and Mongolian,‡ but that the linguistic remains, as it always does, unmixed in its structure. We can speak of a pure Malay linguistic family, but not of a pure Malay ethnical family. The latter is everywhere made up of Caucasian and Mongolian elements variously

* Irreconcilable because of the intonation required to distinguish the meaning of words in the Monosyllabic tongues. There are six tones, for instance, in Annamese; that is, every root is modulated in six different ways according to the sense attached to it. But there are no tones in Malay; hence a Malay, in borrowing an Annamese word, would at once destroy its tone, that is, destroy its very essence. As nothing but the wildest confusion would result from this, all borrowing would have presently to cease, and a "modus vivendi" would have to be sought not by an impossible compromise, but by the absolute triumph of one or other of the two conflicting elements.

† "Dissertation," pp. 287-8. And even the old writer Edmund Scott speaks of the Chinese traders in Malaysia "using all kind of cozening and tricks that can be devised." ("Discourse of Java and the First English Factory there," p. 11. Of these Chinese he remarks that "if once they cut their hair they never return to China," but settle in the country, &c. ("Athenæum," June 14, 1879.)

‡ Hence the inevitable inference, as already pointed out, that the so-called Malay is essentially a mixed type. On this point I am glad to find myself supported by the authority of de Quatrefages, who remarks: "All polygamists have regarded the Malays as one of their *human species*; many monogamists have considered them as one of the principal races. I showed long ago that in reality they are only a mixed race in which white, black, and yellow elements are associated, and that they are closely allied to the Polynesians." ("Human Species," 1879, p. 433.) And at p. 163: "Malaysia presents a perfect mixture of most different races, from the white to the negro. The Malays, properly so-called, are much rather a population levelled by the action of Islamism than a race in the true sense of the word. They present in a high degree the characters of intercrossing."

combined; the former, as we shall now see, is substantially Caucasian or Cambojan.

20. One of the first to point out the intimate connection between Khmêr and Malay was the French Missionary, M. C. Fontaine, a good Khmêr scholar, and also familiar with several dialects spoken by the Khmêr hill tribes. "The greater part," he says, "of those dialects, especially those of the Giraies [Charays], Redais, Candio, and Penongs have such striking mutual points of contact that we cannot but consider them as branches of one stock. After residing several years amongst those tribes, being compelled by my failing health to remove to Singapore, I was surprised after a short study of the Malay to find that it contained a great number of Girai words, besides a still greater number, such as the numerals and the like, which showed a marked analogy in both languages. I have no doubt that these relations will be found still more striking by those who may undertake a thorough study of these languages; THE GRAMMATICAL STRUCTURE OF WHICH IS ABSOLUTELY IDENTICAL."*

21. A careful study of Aymonnier's Khmêr notes fully bears

* Quoted by Mouhot, *op. cit.* p. 216. The last clause runs, "Dont le génie grammatical est identiquement le même."

With regard to the Châm, however, it should be noted that its Malay affinities have long been recognised, Crawford as usual attributing them to a later spread of Malay influences from Java and Sumatra ("Dissertation" p. 129). But recent research has shown that these affinities are common also to the Charay, Piaks, Prêhs, and the other Cochín-Chinese hill tribes that have had no contact with the Malays in historic times. Consequently the explanation lies deeper. "If," says Dr. Hamy, "the Châms are not the only tribe in the peninsula that speaks a Malay language; if all the western hill tribes of the main range have this language in common with the Châms, we shall have to regard the ethnical group of which the Piaks, Chàrays, and Châms are branches as a true continental Malay group (*"un vrai groupe malais continental"*); the Menang Kabau dispersion will no longer be anything more than an episode in the history of the race, and we must henceforth look, not to Sumatra, but to the Indo-Chinese highlands, for the origin of a people which has played the leading part in the history of Western Oceanica." (*L'émigration du Menang Kabau ne sera plus qu'un épisode de l'histoire de la race, et c'est dans les montagnes Indo-Chinoises, et non plus à Sumatra qu'il faudra chercher l'origine d'un peuple qui a joué le rôle le plus important dans l'histoire de l'Océanie occidentale*). In "La Nature" for September 8. 1877, p. 232. Here Dr. Hamy reverses Crawford's process, bringing the Malays from the Châms, not the Châms from the Malays, and he emphasises my contention in the clearest language. At the same time there can be no doubt that in historic times there has been a Malay reaction on the south-east coast of Cochín-China, which was invaded and partly subdued by Malayan rovers in 767 A.D. To this reaction are due many words in the Châm language obviously derived in recent times from the Malay and Javanese. A sure proof of this is, for instance, the Châm *nangrai*, country; from the Malay *nigri*, which is Sanskrit, consequently historical and not organic. But words like *fire* (*apoi, api*), *water* (*aya, ayâr*), *I* (*alun, ulun*) cannot be explained in this way, and clearly point to a common origin of the Malay and Indo-Chinese polysyllabic linguistic families. It is curious to note that these words (*Api, ayâr*) are Javanese as well as Malay and Châm, that is, are a part of the common inheritance, the primate "continental Malay" mother tongue.

out this statement, and places beyond all doubt the identical grammatical structure of the Cambojan and Malayan languages. Both are polysyllabic agglutinating tongues of an extremely simple character, some of the points in which they agree being :—

1. Absence of intonation ; this feature removing both from the category of the Tibeto-Chinese tongues.
2. Absence of nominal and verbal inflexion.
3. Determination of the singular by the numeral *one*, of the plural by the same words : *all*, *full*, *complete*, as in Khmêr, *isi* and *sagala* in Malay.
4. Position of the adjective after the noun ; Kh. *Kredas sa* ; Mal. *Kartas putih* = paper white.
5. Use of similar words to determine gender.
6. Multiplicity of pronouns often alike in form and meaning. Thus the Malay *Mika*, one of the twelve alternatives for *thou*, is explained by the corresponding Khmêr *Mechas*, master. The Patam Malay *Kula*, one of the sixteen synonyms of the first personal pronoun, answers to the Khmêr *Khnhom*, both meaning “servant,” and clearly showing how the numerous Malay pronouns grow out of such concrete conceptions. The Malay *ini*, this ; *nân*, that, in their turn explain the Khmêr demonstrative particles *nê*, *nu*, and like them mostly follow the noun ; *laki-nân* = man-that. Compare also the Khmêr and Malay interrogatives *nona* and *mana*, who ? what ?
7. The Khmêr quint system of numerals recalling the Malaysian pre-decimal period, when a week of five days prevailed in the Archipelago, and traces of which are still preserved in some of the Malaysian numerals. Compare the Khmer and Ende. (Floris Island.) $6 = \bar{5} + 1$; $7 = \bar{5} + 2$, etc.*

But the numerals open up a very wide question, and will again be referred to further on.

22. There are other points of resemblance, such as polite and vulgar forms of speech in Javanese and Khmêr ; common geographical terms such as the Khmêr *Kâmpong* (*Kâmpong Svai*, *Kâmpong Kassang*, etc.) and the Malay *Kampung*, no doubt from the root *Kampuh*, to join or unite, both implying enclosures, quarters of a town, meeting or market places, and

* *Khmer* : pramuy, prampil ; *Ende* : lema-sa, lema-rua. “ Peut-être enfin faut-il chercher aussi dans la semaine de cinq jours jadis en usage dans les îles de la Sonde l'origine de la numération quinquennale dont les dix premiers nombres Cambodgiens conservent aujourd'hui l'empreinte.” (F. Garnier, *op. cit.* vol. i, p. 111.)

answering somewhat to the Greek *ἀγορά*; numerous lists of words,* some doubtless due to comparatively recent Malay influences, but others belonging to a common primeval stock. But common to the Khmêr and Malaysian tongues is one feature so peculiarly distinctive as of itself alone almost sufficient to establish their common origin. This is the use of identical infixes, which though forming a marked characteristic of Khmêr, Malay, Javanese, Tagala, Malagasy and other members of this group, has not yet been generally recognised. Such infixes were long known to exist in Javanese; but both Marsden and Crawford failed to detect them in Malay, and they have only quite recently been discovered by L. Dahle in Malagasy,† and by Janneau in Khmêr,‡ while no one has yet pointed out their common nature and form in the group. Hence I will make no apology for here giving a number of examples in illustration of this most important feature, establishing, as it does, the organic relationship of these languages on a solid basis. The infixes in question are always the same, the liquids *m* and *n*, and even *mn* with or without the connecting vowels *a*, *o* with *m*; *a*, *i* with *n*. Thus:—

IN KHMÊR: *m*, *am*, *om*, *mn*, *n*.

Slap, dead; samlap, to kill.

Sruoch, pointed; samruoch, to point.

Thleak, to fall; tomleak, to throw down.

Rolôm, to fall; romlom, to knock down.

Chereap, to know; chumreap, to show, teach, make known.

Kur, to draw; komnur, a design.

Srek, to cry; samrek, a shout.

Chêk, to share; chamnek, a part or portion.

Sauk, to corrupt; samnauk, a bribe.

Pram, to publish; bamram, a notice.

Pang, to wish; bampang, a wish.

Rep, to confiscate; robep, seizure, thing seized.

Ar, to saw; anar, a saw.

IN MALAGASY: *in*, *om*.

Hanina, food; homana, to eat.

Tady, twisted, a rope; tomady, strong.

Taratra, glaring; tomaratra, transparent.

* Compare: Kh.bong, Malabang, brother; Kh.meas, M.mas, gold; Kh.prak, M.pirak, silver; Kh.prepon, M.parumpuan, woman; Kh.Sach Sandan, M.Sarak Sondara, kinship; Kh.Kapal, M.Kapal, ship; Kh.lompeng, M.lâmbing, spear, &c.

† In "Antananarivo Annual and Madagascar Magazine" for 1876, pp. 41-4.

‡ In the above quoted work, by Aymonier, *passim*.

Safotra, overflown; somafotra, brimful.
 Sisika, forced in; somisika, shattered.
 Sany, likeness; somany, like.
 Safy, spying; somafy, sight of distant object.
 Soratra, writing; somoratra, stained.
 Kerakera, stiffness; homerakera, crusty.
 Lamo, swimming; lomano, swimming.
 Hosy, homosy and homosihosy, spoiled.
 Toetra and tomoetra, state, condition.
 Hehy and homehy, laughing.
 Tamy and tomany, weeping.
 Vono and Vonono, killed.
 Vidy and Vinidy, bought.
 Vaky and Vinaky, broken.

IN MALAYSIAN: *um*, *âm*, *in*.

Javanese.

Rayah, to bereave; rinayah, to be bereft.
 Hurub, flame; humurub, to flame.
 Balinbin, a small fruit; binalinbin, a round gem.

Tagala.

Basa, to read; bumasa, to make use of reading.
 Kapatir, brother; kinapatir, like a brother, brotherly.
 Tapay, to knead; tinapay, bread.

Malay.

Palu, to beat; pâmalu, a club.
 Pukul, to strike; pâmukul, a hammer.
 Sipit, to grasp; sinipit, an anchor.
 Padam, to extinguish; pâmadam, an extinguisher.
 Pilih, to choose; pâmilihan, choice.

23. The comparison has so far been with the Khmêr or Cambodian alone. But it must be obvious that the other polysyllabic languages of Further India* have also contributed in various proportions towards the numerous tongues of the archipelago, the most striking characteristic of which is the vast quantity of their local, unknown, or foreign elements. Thus the subjoined table, judging from a comparison of 1,000 words,

* All of which form one closely connected linguistic group, springing from an original polysyllabic mother tongue. "Sans aucun doute on retrouverait dans le langage des nombreuses tribus qui habitent encore la partie montagneuse du Cambodge les sources mêmes de la langue primitive des Autochtones. Les Sâmrè, les Xong, les Khamen-boran sont de toutes ces tribus celles qui se rapprochent le plus des Khmêrs actuels, leur langue est pour les sept-dixièmes le Cambodgien moderne." (Garnier, *op. cit.* i, p. 11.)

shows that in five Malaysian tongues the average of unknown elements is about 60 per cent.*:—

		Common Malay words.		Words of unknown source.
Madurese	.. ..	675	..	325
Lampung	.. ..	455	..	545
Balinese	.. ..	470	..	530
Bugis	.. ..	326	..	674
Kayan	.. ..	114	..	886
Kissa	.. ..	56	..	944

Some of these unknown words may perhaps be credited to the long vanished Negrito aborigines: but most of them must still be sought for in the numerous polysyllabic languages of Indo-China. Hence it is that every fresh scrap of information regarding these continental tongues will be found to throw continuous light on those of Malaysia. A curious instance of this is afforded by the Zungi Naga dialect, an account of which has just been given us by the Rev. Mr. Clarke.† In this idiom the word for *dog* is *azu*, which at once explains the Malay expression *gigi-asu*, the canine teeth, where *gigi* = tooth, but *asu* occurs nowhere else in the language, the ordinary words for *dog* being *anjing*, *kuyuk*.‡ So with the Banhar, from a short list of words in which, given us by A. Maurice,§ I notice the following common to Malay:—

		<i>Bahnar.</i>		<i>Malay.</i>
Hill	.. ..	Kông	..	Gunung.
Cave	.. ..	Gôr	..	Gâr-onggong.
Drake	.. ..	Ada	..	Itik.
Crocodile	.. ..	Bia	..	Bûaya.
Fish	.. ..	Ca	..	Ikan.
Frog	.. ..	Kit	..	Katak.
Pig	.. ..	Niung	..	Nangi.
Ant	.. ..	Hmout	..	Sâmüt.
Dove	.. ..	Trù	..	Dara.

24. But enough has probably been advanced to establish the organic connection between the Indo-Chinese and brown Malaysian races on physical, ethnical, and linguistic grounds. It remains to be seen in what relationship the brown Malaysian stands to the brown Polynesian or Sawaiori race. My view, as already stated, is that a section of the Caucasian Malaysians broke away eastwards before, or simultaneously with, the first arrival of the Mongolians from the mainland, and that the Sawaiori of the eastern islands are in fact the direct descendants of these Caucasian Malaysians. With the gradual peopling of the several eastern archipelagoes we are not here concerned, though it may be mentioned that there can be no

* Crawford, *op. cit.* p. 285.

† In "Journal Royal Asiatic Society" for April, 1879.

‡ Of course, though now obsolete, *asu* must have formerly meant *dog* in Malay, as no doubt it does still in other Malaysian dialects.

§ In "Revue d'Anthropologie" for October 15, 1878.

reasonable doubt of the dispersion having taken place from Samoa.* That the migration to Samoa was from the west, in fact from Malaysia, is also a generally accepted fact.† That it took place at a very remote period is obvious from such considerations as these.—

1. The great length of time it must have taken to people all the Eastern Pacific, as far north as Hawaii, south to New Zealand, and east to Easter Island.
2. The still greater length of time required to develop the mixed Sawaiori and Papuan types in the Western Pacific—Solomon, New Hebrides, New Caledonia, Loyalty, Fiji Archipelagoes. For the Sawaiori element of these mixed peoples, must have come also from Samoa, it being obvious that, had Samoa been peopled, for instance, from the Solomon or New Hebrides groups, the Samoans and all the other Sawaiori would show Papuan blood.
3. The total absence of Sanskritic elements in the Sawaiori languages. Yet these elements have been current in the cultivated languages of Malaysia—Malay, Javanese, Balinese, Madurese, for more than 2,000 years, probably even before the arrival of any large numbers of Malaysians in Madagascar.‡
4. The absence of Mongolian blood in the Eastern Pacific islands. It may, I think, be safely affirmed that the pure Sawaiori type betrays no traces of Indo-Chinese Mongolian elements, though these have been present in Malaysia from pre-historic times.§ This throws back the first Sawaiori dispersion from the traditional island of Bulotu,|| eastwards to an incalculably remote period. It also confirms my third proposition (p. 259) that “the large brown race of Eastern Polynesia consists exclusively of the Caucasian element.”
25. That there are no Mongolian elements in the Sawaiori stock seems further evident from a comparison of the physical appearance of these peoples. Thus the Eastern Polynesians are one of the tallest races of mankind; their average stature being

* See Stanford's “Australasia,” pp. 613–14.

† Hale, of Commodore Wilkes' exploring expedition; de Quatrefages, Flower, Whitmee, &c., all concur in this view.

‡ The traces of direct Hindu influences in Madagascar are very slight, and in the Malagasy tongue Crawford failed to detect more than six Sanskrit words, two at least of which seem very doubtful.

§ Here there is of course no question of the Mikronesian islanders, who are a decidedly mixed race with Mongolian, Sawaiori, Malay, Tagala, possibly even Papuan or Negrito elements. (See Stanford's “Australasia,” pp. 617–18.)

|| By de Quatrefages, Fr. Müller, and others, on insufficient grounds identified with the present island of Bouru. (See “Australasia,” p. 612.)

no less than 5 feet 10 inches.* But many of the Malaysian peoples, and especially the typical Malays, are much below the medium size, averaging no more than 5 feet 2 or 3 inches in height. On the other hand it has been seen that the typical Malays bear the very strongest resemblance to the typical Mongolians of the Asiatic mainland, also a low-sized race.† Hence the small stature of the Malays is to be explained by a larger infusion of Mongolian blood; the larger size of the Eastern Polynesians by the absence of Mongolian blood.

26. But it may be objected with Crawford, that in the Sawaiori languages, "the Malayan ingredient is extrinsic,"‡ and due to recent contact with the Malays and Javanese. To this I reply that, on the contrary, the Malayan ingredient in these tongues is intrinsic and fundamental. We have already seen that there are no Sanskrit elements in Sawaiori, which could scarcely be absent had the common Malay words§ been of recent importation. The present state of the Indo-Pacific numerals, as in sub-joined table, will further show convincingly that the common elements are organic.

* De Quatrefages, Topinard, Prof. Flower, etc., etc.

† According to Dr. A. Weisbach's recent measurements of 200 individuals representing 19 different races from every part of the world, the Malaysian Tagalias rank *lowest* in the scale next to the Hottentots (1562 mm.) and the Polynesian Maoris *the very highest* (1757 mm.) Next to these come the Kaffirs (1753) followed by another Polynesian race, the Hawaiians, with 1700 mm. But taller than the Hawaiians are the Tahitians and Marquesas islanders (1762) ranking in Topinard's tables ("Anthropologie," chap. V.) as the highest race on the globe next to the Patagonian Tehuelches (1781.) Here the normal Malay appears in the lowest class with 1596. ("Körpermessungen verschiedener Menschenrassen," von Dr. A. Weisbach Regimentsarzt im K. und K. österr.-ungar. Nationalhospital zu Constantinople. Berlin, 1878.) It may be incidentally mentioned that great importance attaches to Dr. Weisbach's studies, which promise to supply the materials for a fresh classification of mankind according to its physical characteristics. "Demgemäss erfolgte auch die Eintheilung der Menschenrassen in Kurz-Mittel und Langköpfe, ferner und, je nach der gegenseitigen Länge der Arme und Beine in *langarmige* (die Arme länger als die Beine), in *gleichgliedrige* (beide gleich lang) und in *Kurzarmige* (die Arme kürzer als die Beine) aus welcher Eintheilung in Ganzen 18 Varietäten hervorgingen. Davon stehen die langarmigen prognathen Kurzköpfe dem Typus der anthropomorphen Affen am nächsten, dagegen die Kurzarmigen, orthognathen Langköpfe demselben am fernsten und haben daher die *höchste Stufe des Körperbaues* erreicht." (Dr. Karl v. Scherzer, 'Resultate auf dem Gebiete der Anthropometrie,' in Petermann's "Mittheilungen," 25 Band, 1879, iv. p. 151.)

‡ "Dissertation," p. 7.

§ Malay is full of Sanskrit terms for the most familiar objects, such as day, sun, head, chief, country, &c., and it has quite 5 per cent. of Sanscritic besides Dravidian and other Indian elements. But not one of these words has found its way to Eastern Polynesia; hence they cannot have been current in Malaysia when the dispersion eastwards took place, or even when the later Malay influences, according to Crawford's assumption, made themselves felt in the Pacific islands. At least it seems otherwise incredible that not one of such familiar Sanskrit terms should have succeeded in finding a home anywhere amongst the Eastern Polynesian tongues.

INDO-PACIFIC NUMERAL SYSTEM.

	1	2	3	4	5	6	7	8	9	10	100	1000
Malay ..	sa ..	dawa	tiga ..	empat lima	anām	tujuh	..	dalapan ..	salapan ..	puluh	{ ratus .. saratus }	ribu saribu.
Manatoto	neli	erua	etālu ..	chāat	lema	uāen	letu ..	walu ..	wih ..	nulu ..	atus ..	—
Gorontalo	ointa	oluo	otohlu	opatto	olino	olomo	opitu ..	oalu ..	otioyo ..	mopulu ..	maheluto	—
Engano ..	balai	adua	akalu ..	acopa	alieba	akiona	alieba-adua	alieba-akalu	alieba-acopa	talapulu {	aliemni- tekkā .. }	—
Montawey	sara..	donga	telo ..	cpat	lima	enen	pilo..	walo ..	siwa ..	pulu ..	siegatu ..	—
Samouy ..	e tasi	e lua	e tolu..	e fā..	e lima	e ono	e fitu	e valu ..	e iva ..	e sefulu ..	e selau ..	e nfe.

Here it will be noticed that the word for five (*lima* with dialectic variations) pervades the whole area. The original meaning of this word was "hand," a meaning it still retains in Samoan, Bugis, Kissa (*liman*), and some other primitive Malaysian tongues, being in fact a relic of the quint system already alluded to. But this meaning is lost in Malay, Javanese, Malagasy, etc., where *lima*, retained as a numeral, has been replaced in the sense of *hand* by *tangan*, *tahan*, *tanghan*, etc. Here, therefore, it is the Samoan that explains the Malay, and not the Malay the Samoan. Hence so far from deriving in recent times from Malay, Samoan comes nearer to the original source whence both derive.

27. Observe further that in the Samoan, which is the typical Sawaiori language, the numerals are throughout accompanied by what grammarians call the enunciative particle *e*: *e tasi*; *e lua*, etc. Calling it by this grand name simply means that for the grammarians its original sense is lost. But a glance at our comparative table will not only enable us to recover this original sense, but will also throw light on other points in which we are more immediately interested. The *erâu*, *etâu*, *ehât* of the Manatoto (Timor Island), and the *o-inta*, *o-luo*, *o-tohlu*, *o-limo*, etc., of the Gorontalo (North Celêbes)* show that this "enunciative particle" was also originally a prevailing feature of the western or Malaysian numeral system. Its true meaning is moreover revealed by the Malay forms *sa-ratus*, "one hundred," *sa-ribu*, "one thousand." Hence *e*, *o*, etc., are obviously relics of *sa*, *satu*, "one," and the Samoan *e tasi*, *e lua*, simply mean "a one," "a two," etc., as we still say in English, and Malay "a hundred," "a thousand," forms pointing back to the time when the numerals were still purely concrete conceptions. They are still at the concrete stage in Samoan, but have reached the abstract in Malay; consequently here again the Samoan does not derive from, but stands on a lower or more primitive level than the Malay. The Samoan *e sefulu* is specially remarkable, for here we have the enunciative unconsciously repeated twice over in two stages of phonetic decay, the expression being really equivalent to *sa-sa-fulu*, "a-one-ten." The form *se* at the same time clearly connects *e* with *sa*,† and the

* Compare also the Engano forms in same table: *a-dua*, *a-kalu*, *a-lieba*, etc., for *sa-dua*, *sa-kalu*, *sa-lieba*, etc., and notice particularly the curious mixture of the earlier quint and later decimal system in this language. Thus *alieba-adua* = $5 + 2 = 7$, *alieba-akalu* = $5 + 3 = 8$. The form *tahapulu* = 10 is also very remarkable, and can only be explained by reference to the Samoan, which shows that *taha* = *tasi* = one; therefore *tahapulu* = "a ten," as in Samoan itself. Engano is spoken in an island off south-west coast of Sumatra, south from the Mentawey group.

† And the derivation of all these prefixes from *sa* is placed in the clearest light by the Bugis (south Celêbes) form; *sô-pulo* = ten. In Bugis it has dis-

needless repetition shows that the original sense has long been lost: a further proof of the vast antiquity and independence of the Sawaiori tongues. We therefore conclude that, however few they may be, the common elements in the Indo-Pacific languages are organic and not borrowed, consequently that these languages really form a linguistic family in the same sense that the Arvan or Semitic are linguistic families. The fact that these common elements are few, on which Crawford builds so much, simply means that the dispersion took place at a vastly remote period, a conclusion which has also been arrived at on other considerations.

28. A further proof that the Sawaiori represent the primitive Caucasian element of Malaysia, is afforded by the present state of the Malaysian populations. It is evident that, if our assumption be correct, there must now be present in the Archipelago, various gradations of the so-called Malay type, some approaching, others departing more and more from the Sawaiori type—that is, some with a greater, others with a less infusion of Mongolian blood. That such is the case, Yunghuhn and the French Anthropologists, Broca and Dr. Hamy, have long maintained. Apart altogether from the dark Papuan and “Alfuro” peoples of the eastern islands—Floris, Ceram, Gilolo, Timor, Key, Mysol, Aru, etc.; they speak of a pre-Malay and a Malay element in the western islands, and if by Malay we may understand a larger, by pre-Malay a slighter admixture of Mongolian blood with the primitive Caucasian stock everywhere present,*

appeared from all the other lower numbers, but reappears in the form of *si* in the higher. Thus: *si-ratu*=100, *si-röbu*=1,000, *si-lasa*=10,000. But in 100,000 we have the original *sa*: *sa-koti*. Traces of the same numeral prefix occur also in the languages of the Philippine Islands. Thus:

	three.		ten.
Tagalog of Bataan ..	<i>ta-telo</i> = <i>sa-telo</i> ..		<i>sampô</i> = <i>sa-pulo</i> .
Pampangan of Zambales	<i>a-telo</i> ..		<i>a-pulo</i> ..
Negrito of Mariveles ..	<i>ta-telo</i> ..		<i>sampô</i> ..
Negrito of Zambales ..	<i>ta-telo</i> ..		<i>giampo</i> ..

(from A. B. Meyer's tables in “Die Negritos der Philippinen,” p. 5). The alliterative form, *ta-telo*, is interesting, as explaining the otherwise inexplicable ordinary Tagalog form, *tatlu*, which now appears to be obviously a contraction of *ta-telu*=*sa-telu*. The *ta* may possibly even point to the more primitive Malay form *satu*=*sa*, in which case the dental would be accounted for, without supposing it to represent an older sibilant. In *sa-m-pô*, we have *pulo* contracted to *pô*, and the insertion of a euphonic *m*, as in the alternative Malay form *sambilan* for *salapan*=nine. In *a-pulo* the *s* disappears as in the above quoted Engano forms. All these are, therefore, surviving fragments of the prefix *sa* or *satu* universal in the Malay numeral system before the dispersion, and still preserved throughout in the form of *e* in the Samoan alone.

* The reason why the Caucasian element must be held to be everywhere present in Malaysia is of course the total absence of Indo-Chinese monosyllabic forms of speech from this area. Had any pure Mongolian communities been formed in any part of the Archipelago, languages resembling the Burmese Siamese, or Annamese would now be spoken in those places.

the distinction may so far be accepted. That there really exist such varying types as would result from these varying fusions, there can be no doubt. We have on the one hand Battas, Passumahs, Lampungs of Sumatra; the Bornean Kayans, the natives of Bali, Célèbes, Nias, and especially the Mentawey islanders, a tall muscular race, with well-modelled torso, long head, rather oval features, high forehead, straight nose, horizontal eyes, a ruddy or light cinnamon complexion, long hair of a fine texture inclining to a brown shade, and beard often fairly developed.* These are Dr. Hamy's pre-Malays, our Caucasians slightly, though still diversely affected by Mongolian admixture. On the other hand, there are the Malays proper; † the Javanese, Sundanese, Madurese, Rejangs, Atchinese, some of the Gilolo and Célèbes peoples, and the Tagalo-Bisayans of the Philippine Islands. These are Dr. Hamy's typical Malays, and our Caucasians far more largely affected by Mongolian elements; the essential difference between the two views being that I insist on the presence everywhere of a Caucasian substratum for reasons already specified.

29. The pre-Malay peoples, as thus differentiated, Dr. Hamy proposes to group together under the collective designation of *Indonesians*, a term originally invented by Logan. But, what is to us of more importance, he connects these Indonesians directly with the Sawaiori race. "I think," ‡ he writes, "it may be admitted that the pre-Malay populations, Battas, Dyaks, &c., whom I propose to collectively call Indonesians, are nearly allied to the Polynesians properly so called, and that the two groups must henceforth occupy closely approximate places in our classifications."

* Dr. Hamy in "Bul. de la Soc. de Geographie," vol. xiii, 1877, pp. 491-3.

† For this type see note †, p. 277.

‡ "Je crois pouvoir admettre que les populations prémalaises, Battas, Dayaks, etc., que je propose de réunir sous le nom d'Indonésiennes, sont fort voisines des Polynésiens proprement dits, et que les deux groupes doivent désormais occuper deux places toutes proches dans nos classifications." ("Bul. de la Soc. de Geographie," vol. xiii., 1877, p. 491.)

Without employing the same terminology, de Quatrefages proclaims the same doctrine. "Both physical and philological characters show that the Polynesians are a branch of those Malay races which are divided into numerous groups of shades of difference, sometimes strongly marked. IT IS TO ONE OF THESE GROUPS WHICH ARE LEAST DISTANT FROM THE WHITE TYPE THAT THE NATIONS IN QUESTION MUST BE REFERRED." ("Human Species," p. 189.) Here the Polynesians (Sawaiori) are connected, not with the typical Malays as is usually done, but with the fair element in Malaysia, which is "least distant from the white type," that is, most removed from the typical Malays. In the typical Malay the Mongolian or yellow element predominates; in the "Indonesian" or "pre-Malay," it is found in continually decreasing proportion; in the Polynesian (Sawaiori) it is not present at all. Hence my objection to the term Malayo-Polynesian, which implies a mixture where there is no mixture either ethnical or linguistic.

30. In the same place he observes that the relations of these two races are becoming closer and closer according as more accurate knowledge is accumulated regarding them.* This remark has just been most unexpectedly confirmed by the account of the Mentawey people given us in his new work on "The Malay Archipelago" by C. B. H. von Rosenberg.† These islanders, occupying the Siboro, Péra and Pageh groups about 70 miles off the West Coast of Sumatra between 1°—3° 50' S. latitude, he describes as not only almost totally distinct from the surrounding Malay peoples, but in physique, language, habits and customs strikingly like the Eastern Polynesians.‡ "On a closer inspection of the inhabitants the attentive observer at once perceives that the Mentawey natives have but little in common with the peoples and tribes of the neighbouring islands, and that as regards physical appearance, speech, customs and usages they stand almost quite apart. They bear such a decided stamp of a Polynesian tribe that one feels far more inclined to compare them with the inhabitants of the South Sea Islands."

31. This divergence from the ordinary Malay and approach to the Sawaiori type is fully borne out by the illustrations of some Mentawey islanders, figured at p. 185, vol. i, of von Rosenberg's work. The animated picture No. 2, might well be taken for a faithful representation of similar aquatic scenes in Eastern Polynesia, even to the fittings and shape of the prau in the foreground. The people are described as of "a somewhat light ruddy-brown complexion,"§ with fine black and slightly waved hair, full open eyes, symmetrical figure, rather above the middle size, large and muscular frames. Their weapons are the bow and arrow, their utensils mostly wooden, they are ignorant of the potter's art, a distinctive feature of all the Eastern Polynesians, whom they also resemble in the practice of tabooing certain articles of food and in the manner of burying their dead "recalling the customs of many Polynesian tribes."||

* "Deux races dont les liens de parenté vont se resserrant de plus en plus à mesure que des connaissances plus précises s'accumulent à leur sujet." (*Loc. cit.* p. 491.)

† "Der Malayische Archipel," Leipzig, 1879.

‡ "Betrachten wir die Bewohner naher so fällt es dem aufmerksamen Beobachter gleich beim ersten Anblick auf, dass der Mentaweyer nur wenig Uebereinstimmen, des mit den Völkern und Stämmen der Nachbarinseln besitzt, und dass er, was körperbildung, Sprache, Sitten und Gewohnheiten betrifft, beinahe isolirt dasteht. Er trägt so ganz und gar das Gepräge eines polynesischen Stammes, dass man ih weit eher mit einem Bewohner der Südsee-Inseln vergleichen könnte." (*Op. cit.* vol. i. p. 189.)

§ "Ein ziemlich helles Röthlichbraun." (*Op. and loc. cit.*) Mark the absence of the olive or yellow tinge so characteristic of the Mongolian and many Malay peoples.

|| "Die Bestattung der Todten . . . erinnert an die Gebräuche mancher Polynesischer Volkstämme;" i, p. 196.

32. But decisive on the point is their speech, of which some specimens are given, and which von Rosenberg describes* in a general way as "very primitive and but little developed," fairly harmonious owing to the abundance of vowels (all strictly Sawaïori characteristics) and with the exception of some borrowed words possessing "not the slightest resemblance to the idioms spoken on the surrounding islands and in Sumatra." Its affinities are in fact with the Eastern Polynesian, as may be seen from the subjoined table of a few words, in which for the purposes of comparison I have given the restored organic Sawaïori or Oceanic forms, together with the present Malay. From a general study of von Rosenberg's lists I should fancy that about 10 per cent. of the Mentawey elements must be still common to the Sawaïori after an assumed separation of many thousand years:—

	Mentawey.	Organic Indo-Pacific, restored.	Samoan.	Malay.
Canoe	abak	abaka	va'a† = vaka	prau.
Mouth	ngu-ngu	ngu	gutū = ngutu	mulut.
House	lalep	lalapa	{ lau = lalu } { fale }	ruma.
Sun	sulu	sulu	lā	mata-ari.
Rain	urat	ura, ula	ua = u'a = ula	hujan.
Stand &c.	suruke	turaki	tula'i = tulaki	māuaga.
Banana	bako	bako	fa'i = faki	pisang.
Child	toga	tanga	tama	anak.
Hair	alei	lalanga	laulagi = laulangi	hujung.
Fish	ivat	ika	i'a = ika	ikan.
Twenty	dongapulu	sa-dua-nga-pulu	e luafulu	duwapuluh.
Fifty	limongapulu	sa-lima-nga-pulu	e limagafulu	limapuluh.

33. Here again we have a fresh proof that the common Indo-Pacific elements are not due, as Crawford supposed, to a later spread of Malay influences, for, except the last three words, those common to Mentawey and Samoan have disappeared from Malay. This language has also lost the primitive numeral infix *nya* still preserved in the Mentawey *limo-nga-pulu*, and in the Samoan *e lima-ga-fulu*, and in these alone of all the Indo-Pacific tongues of which I have seen specimens.‡

* "Sehr primitif und wenig entwickelt wegen, der vielen Vokalen . . . ziemlich wohl-lautend . . . nicht die mindeste Aehnlichkeit mit den Idiomen die auf den umliegenden Eiländern und auf Sumatra gesprochen werden." (Vol. i, p. 196.)

† The inverted comma, thus (') in Samoan orthography, marks a sort of hitch or "break" as it is called in the voice, always denoting the elision generally of a *k* (in cognate tongues of a *t*) and no doubt also of other consonants; hence the secondary forms in this column. Note also that in Samoan, *g* is always uttered as *ng* in "ring."

‡ Its original universality is placed beyond doubt by its persistence in the Samoan numerals, from 30 upwards. Thus, *e tolu-gafulu* = 30, *e ivagafulu* = 90, *e tolu-galau* = 300, *e tolu-ga-fo* = 3000. There occur even such forms as *e faga-fo*

34. The Mentawey islanders are thus brought into direct connection with the Sawaiori stock. But "the presence of a Sawaiori people, if such they be, on this extreme western verge of the Malay domain, cannot be accounted for by assuming a more recent migration across all the vast and often densely peopled Papuan and Malayan regions, from Samoa westwards to and beyond Sumatra."* Hence we must conclude that they are here Autochthonous, and that they stand in the same relation to the other Malayan races as do the Sawaiori themselves. They may be taken as the purest known type of Dr. Hamy's Indonesians, being probably the only section of the first Caucasian occupiers of Malaysia that has hitherto escaped contact and fusion with the later Mongolian intruders, their isolated position in the Indian Ocean at some considerable distance from Sumatra to some extent explaining this remarkable phenomenon.

35. A very few words will suffice for the dark races of the Oceanic area. The question of the mutual relations of the Indo-Pacific peoples, as already remarked, is very little affected or complicated by them except where fusions of different elements have taken place. This seems to have occurred to a small extent in Australia, unless the Australian be regarded with some anthropologists as itself a mixed type, a point foreign to our present scope. The extinct Tasmanians, notwithstanding marked peculiarities due doubtless to long isolation and special physical conditions, seem to have been a mixture of Papuans and Australians in proportions difficult now to determine, though perhaps it is safe to say that the former element, on the whole, predominated.

36. The geographical area of the Papuans themselves, as well as of their main subdivisions, has already been indicated, and here it will be enough to insist with Wallace and Flower on their fundamental difference as a type from the neighbouring Negritos. Great confusion has arisen from the loose way in which the two terms have been applied by popular and even by scientific writers. It will therefore be well to bear in mind that the two races are quite as distinct from each other as either of them is from the surrounding brown races. The Negritos are one of the very smallest people on the globe, averaging no more than 4 feet 8 inches in height, whereas the Papuans, with much variation, are, on the whole, above the middle size. Their cranial capacity rises to 80 cubic inches; that of the Negritos

=4 times a couple=8, in counting cocoanuts: e tu 'eagafulu=10 crayfish. This form seems to give a cue to its origin, which may be traced through aga=span to saga, as in limasaga=5 span. Thus e limagafulu would mean literally five span 10, i.e. ten spanned or yoked together 5 times, hence 50.

* Stanford's "Australasia," p. 613.

falling to 74. The former are distinctly prognathous with platyrrhine nasal index; the latter mesognathous and mesorhynch. The Negrito head is very short and round with flat and rather full forehead, small, straight, and narrow nose, turned up at the apex. The Papuan head, on the contrary, is often very long, always narrow, with retreating forehead, broad, arched and very prominent nose, with the tip prolonged downwards. The two have little, in fact, in common except their dark colour and frizzly or woolly hair; features which they share also with the African negro.*

37. The results so far arrived at may now be conveniently tabulated as under:—

I.—General Scheme of Indo-Chinese and Inter-Oceanic Races.

A—DARK RACES.

I. AUSTRAL: Australian, Tasmanian?

II. NEGRITO: Aetas of Philippines, Samangs of Malacca, Andamanese, Karons of New Guinea.

III. PAPUAN { Papuans proper, Interior New Guinea, Arfaks, Nufors, Koiari, Koitapu, Aru, Waigin, Salwatty, Mysol, etc.
Sub-Papuans East (Melanesians): Admiralty, Louisiade, New Britain, New Ireland, Solomon, New Hebrides, Loyalty, New Caledonia, Fiji.
Sub-Papuans West, Gilolo, Floris, Ceram, Buru ("Alfueros"), Timor, Serwatty, Kissa, etc.

B—CAUCASIAN RACES (BROWN).

IV. KHMER Branch { Khmers proper, Khmer-dom (Kuy) Sam-ré, Xong, Stieng, Charay, Cham, Prôon Banhar, Cedang, Muong, Khmù, Piak, Lawa, Xien-Mai, Muang, Lolo.
V. SAWAIORI Branch { Samoa, Tonga, Maori, Tahiti, Marquesas, Tuamotu, Hawaii, Tokelau, Ellice, Niue, Motu, Kerapuno. Mentawey.

C—MONGOL RACES (YELLOW).

VI. Chinese, Annamese, Siamese, Laos, Shan, Burmese, Khasia, Karen, Khyen, Talaing?

D—MONGOLOID RACES, (OLIVE-BROWN) AND BROWN.

VII. MALAYAN Branch { Malays, Javanese, Sundanese, Madurese, Balinese, Atchinese, Rejongs, Tagalo-Bisayans.
VIII. SUB-MALAYAN PRE-MALAYAN or INDONESIAN Branch. { † Battas, Passumahs, Singkel, Lampung, Dyak, Nias, Batu, Nassau, Sumba, etc. } Malaysians

* "Kurz, alles vereinigt sich um uns das Bild einer niedrigeren Entwicklung zugeben, aber einer Entwicklung welche weder mit derjenigen der afrikanischen Neger, noch mit denen der Papuas und der Australier soviel bis jetzt ersichtlich, irgend eine Aehnlichkeit zeigt." (Virchow quoted by Dr. A. B. Meyer in 'Ueber, die Negritos oder Aetas der Philippinen.' Dresden, 1878, p. 43.)

† Although here grouped as Mongoloids, it should be noted that in these "Indonesians," the Mongol element is often very slight and always much less than the Caucasian. With the Malayan branch (VII) the reverse is the case. (See sec. 23, p. 280.)

- IX. MIKRO-
NESIAN
Branch. } Pelew, Caroline, Marshall, Gilbert Ladrões.

Here the ethnical and linguistic grouping correspond in Division A (dark races). But we have seen that the Mongol peoples amalgamating in Malasia with the Caucasians and thus producing the mixed Mongoloid races D, in all cases laid aside their monosyllabic and adopted polysyllabic forms of speech. Hence in the other divisions the ethnical and linguistic grouping no longer correspond, a fresh proof that language is not necessarily a racial test. For these divisions the linguistic grouping will stand thus :—

38. II.—*General Scheme of Indo-Chinese and Indo-Pacific Languages.*

A.—INDO-CHINESE FAMILY (monosyllabic toned languages, exclusively on the mainland).

Chinese.
Annamese.
Siamese.
Lao.
Shan.
Burmese.
Khasia, &c.

B.—INDO-PACIFIC FAMILY (Polysyllabic languages spoken *recto tono*).

I. Mainland : Khmêr, Sâm-rê, Kuy, Charey, Cham, Stiêng Banhar, Lawa, Cedang, Muang, &c.

II. Oceanic.	{	Malayan : Malay, Javanese, Sundanese, Balinese, Madurese,	} Malay- sian.
		Bugis, Macassar, &c...	
		Sub-Malayan : Batta, Lampung, Rejong, Dyak, Gorontalo	
		Tagala, Bisayan, Malagasy, Formosan, &c.	
		Sawaiori : Samoan, Tongan, Maori, Tahitian, Marquesas, Tuamotu,	
		Hawai, Motu, &c.	
		Mikronesian : Pelew, Caroline, Marshall, Gilbert.	

39. Here no place is given to a so-called "Mon-Annam" linguistic family, of which a good deal has recently been heard, and which is supposed to embrace the Annamese, Cambojan (Khmêr), and Mon or Talaing of Pegu, with assumed Kolarian affinities. But no such family exists, the Annamese and Khmêr belonging to totally different orders of speech, and the Khmêr having nothing in common with the Kolarian beyond perhaps a few verbal resemblances through the Talaing.*

40. Excluding the dark races, we therefore conclude that in

* "La langue Cambodgienne n'a rien de commun à l'exception de quelques mots annamites et Talains avec les langues mongoles de l'intérieur de la péninsule." (Garnier, i, p. 111.) And of the Kol, he remarks, at the same place that it "n'a plus de commun avec le Cambodgien que quelques mots venus par l'intermédiaire talain et une singulière délicatesse d'inflexions dans le prononciation des voyelles."

the Indo-Chinese and Indo-Pacific area there are two fundamentally distinct racial types only, the yellow or Mongolian, and the brown or Caucasian; and corresponding to them two fundamentally distinct forms of speech only, the monosyllabic spoken *vario tono*, and the polysyllabic spoken *recto tono*. All the rest is the outcome of incessant interminglings going on for an indefinite period of time.

Résumé.

Recent ethnological research in Further India and Malaysia could not fail to affect the views hitherto entertained on the affinities of the peoples occupying this area. The discovery of a non-Mongolian fair type in Indo-China, connected in physique with the Western Asiatic type conventionally known as "Caucasian," and speaking polysyllabic untuned languages, introduces a distinctly new factor into the problem. An attempt is here made to show that this factor offers the true solution of the intricate questions connected with the mutual relations of all the Indo-Chinese and Inter-Oceanic peoples. The conclusions I have arrived at are briefly these:—

I. Two ethnical types, the fair and the yellow, have occupied Indo-China from the remotest times. The yellow or Mongoloid is represented by the Burmese, Khassias, Shans, Siamese, Laos, Annamese, mostly semi-civilised and settled, and all exclusively speaking monosyllabic toned languages. The fair or Caucasian, varying from white to different shades of brown, is represented by the semi-civilised and settled Cambojans or Khmêrs, Khmêrdoms or "Primitive Khmêrs," Chams and Kûys, and by the unsettled hill-tribes collectively known as Moïs, Khâs, Penongs, or Lolos, all speaking closely related polysyllabic untuned languages. The historical continuity of the fair type is shown by reference to the bas-reliefs of Ongkor-Vâht.

II. Malaysia and Western Polynesia were originally occupied by two dark autochthonous types, for the present to be held as distinct—The Papûans mainly in the East, the Negritos mainly in the West. The Negritos are still represented by *disjecta membra*—Aetas in the Philippines, Samangs in Malacca, "Min-copies" in the Andaman Islands, Kalangs in Java, Karons in New Guinea, possibly by others in Borneo and Formosa. But elsewhere they have everywhere been rather supplanted than absorbed by the intruding fair and yellow races from Indo-China. The Papûans are still represented by compact masses—Nufors, Arfaks, Kiotapus, Koiaris, Waigiu, Aru, &c, in and about New Guinea; elsewhere they have rather been fused with than supplanted by the fair and yellow races, the fusion resulting in the

so-called "Alfuros" of Ceram, Timor, Jilolo, Mysol, and other islands west of New Guinea, and in the Melanesians of the Admiralty, New Hebrides, Solomon, Fiji, Loyalty, New Caledonia, and other islands east of New Guinea.

III. Western Malaysia is now almost exclusively occupied by the fair and yellow stocks from Indo-China, everywhere intermingled in diverse proportions, but the fair, as the earliest arrivals, everywhere forming the substratum. Where the yellow prevails, the outcome are the typical Malays of Malacca, Java, parts of Sumatra, Bali, Lombok, Coasts of Borneo, &c. Where the fair prevails, the outcome are the so-called "Indonesians," or "Pre-Malays"—Battaks, Passumahs, Atyehs, Lampungs of Sumatra, Dyaks and Kayans of Borneo, the natives of Celebes, Nias, Poru, &c. Thus the Malay is not an organic, but essentially a mixed type, oscillating between the fair and yellow, and at the extremes imperceptibly merging in both.

IV. But though the Malay is ethnically a mixed type, its speech is unmixed in structure, and fundamentally related to the Cambojan and other languages spoken by the fair races of Further India. This relationship is established on a sound philological basis, and the morphology of all these tongues is shown to be identical. The Indo-Pacific (so-called "Malayo-Polynesian") linguistic family is thus extended so as to embrace the polysyllabic untuned languages of Indo-China, as the source whence all the Oceanic branches derive. The total absence of the monosyllabic toned languages of the yellow races from the Oceanic area is accounted for, this remarkable fact affording the key to the order in which the prehistoric migrations took place from the mainland to the Archipelago.

V. The large brown race, in almost exclusive possession of Eastern Polynesia (Samoans, Tahitians, Maoris, Hawaiians, Tonga and Marquesas islanders), is affiliated, not to the typical Malays, but to that element in Malaysia which diverges most from the Mongoloid and approaches nearest to the Caucasian type. The migration of the fair race from the Archipelago eastwards is shown to have taken place at an extremely remote epoch, before or simultaneously with the arrival of the yellow races from Further India, consequently before the evolution of the Malay type proper. Hence there are no true Malayan ethnical elements and no Mongol blood in Eastern Polynesia. The direct connection of the Eastern Polynesians with the Indonesians of Malaysia is further confirmed on linguistic, physical, and ethical grounds.

Conclusion. Excluding the dark races there are in the Indo-Chinese and Inter-Oceanic area two fundamentally distinct racial types only—the yellow or Mongolian, and the fair or

Caucasian; and corresponding to them two fundamentally distinct forms of speech only—the Monosyllabic, spoken *vario tono*, and the Polysyllabic, spoken *recto tono*. All the rest is the outcome of incessant secular interminglings.

DISCUSSION.

THE PRESIDENT, regretting that the lateness of the hour made any full discussion impossible, called attention to the failure of the late Professor Bopp's attempt to connect the Malaoy-Polynesian languages with the Sanskrit. Mr. Keane's attempt to make the Khmêr language of Cochin-China a linguistic bridge to connect the Malay district with the interior of Asia represented a new departure in the subject, and it was to be hoped that Mr. Keane's theory would soon be examined with the attention it deserved. While admitting that the Polynesian features are often not very unlike the so-called "Caucasian" type, Dr. Tylor remarked that the difference of complexion was a serious bar to the hypothesis of their connection, which could only be removed by sufficient cause for such difference being assigned.

Mr. DISTANT said it was with no desire to criticise Mr. Keane's able paper, but rather with a view of strengthening the same, that he desired to deprecate too much value being placed on the engravings to be found in the two volumes of travels of M. Henri Mouhot. As is too well known, that unfortunate traveller died during his wanderings, and his drawings were sent home with his journals. But that the first must have been subject to some modification can be plainly seen from an inspection of the plate entitled "Monkeys playing with a Crocodile" contained in the first volume. Here, against all our knowledge of Zoology and Geographical Distribution of Animals, we find monkeys (called apes in the text) portrayed with *prehensile tails*. He would therefore suggest that the drawings of the monkeys must be altered before much weight can be placed on the portraits of the men to be found in that work.

The following paper was written abroad some ten years ago. It is crude, and has lain by ever since. In consequence of some conversation with Mr. Tylor, bearing on the subject, I sought out the paper and sent it to him, though I should not have spontaneously put it forward at the Anthropological Institute without expending a great deal more labour on it, for which I have not now time.—H. Y.

NOTES on ANALOGIES of MANNERS between the INDO-CHINESE
RACES and the RACES of the INDIAN ARCHIPELAGO. By
Colonel YULE, C.B. *

THE old Ethnologists used to class the Malay family as quite distinct from that of the Indo-Chinese races of the continent, and their language, which is not one of monosyllables, like that of nearly all the Indo-Chinese races, certainly marks a great present distinction. Yet we cannot but believe that they are closely connected, speaking at least of the Malayan race as it exists in the great Indian islands, whatever may be the truth as to the natives of the Polynesian islands, to whom the title has been often extended. We have seen faces of natives of Java on the one hand, and of natives of Burma and of the mountains on the eastern frontiers of Bengal on the other, as near identity as human faces ever are, whilst there are many particulars common to the customs and peculiarities of the two regions which seem to argue a close relationship. That able observer, Dr. Buchanan Hamilton, took this view, and so apparently did that most zealous student of the Eastern races, Mr. Logan, of Singapore, who carried to his too early tomb a vaster knowledge of the races and regions in question than anyone else is likely to accumulate in our day.

My intention in this paper is to detail, without much attempt at system or commentary, some of those common traits to which reference has been made.

One of these is the general aversion to the use of milk, which is common to the Indo-Chinese races, and to those of the Archipelago, including on the one side (as examples) the Burmese, the Kasias, the Nagas of our Bengal frontier, and even the Chinese themselves, on the other side, the Javanese, the Balinese, and the races of Sumatra. In Bali, where alone among the islands the Vedas still exist in some form, and the Brahmanical ceremonies, more or less corrupted, are maintained to this day, *ghí*, or boiled butter is necessarily known by name from the important place that it occupies in the Hindu rites and offerings, but from lack of milk a substitute is concocted from the cocoa-nut.†

On the other hand the love of putrescent fish, and of sauces of ancient and fish-like smell (such as are called by the Burmese

* Read April 29th, 1879.

† Sometimes, however, exceptionally, the Pandits of Bali do use cows' milk in the preparation of *ghí* for their ceremonial. (Friedrich in "Batav. Transactions," xxi, p. 51.)

ngapé, by the Javanese *trási*, by the Malays *Blácháng*, by the Siamese *Kápe*), is almost universal in both regions.

The wilful staining of the teeth, either by a specific process, or by the constant use of *pán* without subsequent cleansing is common to nearly all the races of Transgangetic India and the Archipelago. "Men ought not to have teeth like those of dogs or monkeys," say the Javanese; "Dogs and Bengalees have white teeth," says the Kasia; the Peguans "had a fancy to dye their teeth black, because dogs' teeth are white, whom they hate to imitate," we are told by Sir Thomas Herbert.*

The still more singular custom of covering the teeth entirely with a case of gold existed in the Middle Ages among a people of western Yunnan, as we know not only from Marco Polo, but from Chinese and Persian historians. And precisely the same practice has recently existed, if it does not still exist, in Sumatra, Timor, and Macassar.

I do not mention in the same category the filing of the teeth, as I cannot recall proof of the practice among Indo-Chinese tribes. Among the islanders it is very general; and a modern Dutch writer remarks as a notable feature in the countenances of the latter that when the teeth are shut, *unless they be filed*, the lips do not close; and he suggests that tooth-filing may have been an attempt to remedy this natural blemish.†

The extravagant enlargement of the ear-lobe is common to most of the tribes of both regions. The Mishmis and Abors of the Assam borders have perforations in the ear-lobe one inch in diameter. The Burmese often stick their large cigars in the orifice. Crawford speaks of the "enormously distended apertures in the ear-lobes of the women of Bali." The wild Dayaks of Borneo distend the ear-lobe by heavy earrings, till it reaches the shoulder or even falls below it.‡

Another coincidence is an idiom of language, the origin of which lies deep. It is one which is found most completely developed in the Malay language, though there are traces of it also in Javanese. We shall best show what it is by a quotation from the late venerable John Crawford:—§

"In the enumeration of certain objects, the Malay has a peculiar idiom which, as far as I know, does not exist in any other language of the Archipelago. It is of the same nature as the word 'head,' as we use it in the 'tail' of cattle, or 'sail,' in the enumeration of ships; but in Malay it extends to many

* "Crawford's Hist." i, 217; "Journ. As. Soc. Bengal," xiii, 620; "Herbert's Travels," p. 360.

† Van der Tuuk, "Notes upon Lassen," Utrecht, 1862. p. 17.

‡ "Journ. Indian Archip." ii, 236; "Crawford's Hist." i, 218; "Moor's Notices," p. 40.

§ "Malay Grammar."

familiar objects. *Alai*, of which the original meaning has not been ascertained, is applied to such tenuous objects as leaves, grasses, etc.; *Batang*, meaning 'stem,' or 'trunk,' to trees, logs, spars, spears, and javelins; *Bantak*, of which the meaning has not been ascertained, to such objects as rings; *Bidang*, which means 'spreading,' or 'spacious,' to mats, carpets, thatch, sails, skins, and hides; *Biji*, 'seeds,' to corn, seeds, stones, pebbles, gems, eggs, the eyes of animals, lamps, and candlesticks," and so on. He names eight or nine other terms, one or other of which is *always* used in company with the numeral, in enumerating different classes of objects, as if in English the idiom should compel us always to say "Two stems of spears," "Four spreads of carpets," "Six corns of diamonds."

Now precisely the same peculiarity is found in the Burmese language. In it also there exists a set of specific and technical terms, called by the grammarians *numeral affixes*, some one or other of which is always used as a co-efficient to the numeral, the term being selected according to the class under which the object falls, just as in the Malay. The Burmese affixes seem to be more numerous, and the classification which guides their application seems to be more arbitrary and sophisticated. Thus *Oos*, a root implying "chief," or "first," is applied to kings, divinities, priests, etc.; *Yauk*, "a male," to rational beings not divine; *Gaung*, "a brute beast," to irrational beings; *Pya*, implying superficial extent, to dollars, countries, dishes, blankets, etc.; *Lun*, implying rotundity to eggs, loaves, bottles, cups, toes, fingers, candles, bamboos, hands, feet, etc.; *Tseng* and *Gyaung*, extension in a straight line, to rods, lines, spears, roads, etc.*

It is very difficult to conceive that two tribes, not far apart in geographical position, who have in common such a singular and deep-lying peculiarity of idiom, are not sprung from the same stock. And the fact that a similar idiom exists also in Siamese and Chinese may be held to strengthen the argument. It is, I believe, a transfer of this idiom from Chinese to Pigeon-English that has produced the *pieceny* which in that quaint dialect seems to be used as the universal numeral affix. (Two *pieceny* cooly, three *pieceny* dollar, etc.)

It is true that traces of the same tendency are found in Hindustani and Persian, especially in the official written style of *múnshis*, who delight in the surplusage of two *sheets* of letters; three *persons* of soldiers; five *rope* of buffaloes; ten *chains* of elephants; and even in our own tongue when we talk of so many *head* of cattle, so many *file* of soldiers, so many *sail* of ships, so

* Latter's Burmese Grammar."

many *stand* of rifles. But still the practice is technical and exceptional; insomuch that I remember when a boy, in old Reform Bill days and when disturbances were expected in a provincial town, hearing it stated by a well-informed lady that a great proprietor in the neighbourhood was so alarmed that he had ordered from town *a whole stand of muskets*.

If I am not mistaken, the propensity to give certain technical and appropriated titles to the pairs of certain animals, which had such extensive development in old English sporting phraseology, and still partly survives, had its root in the same state of mind, viz. : a dislike to abstract numbers. Some light is thrown on the feeling and on the origin of the idiom of which we have been speaking by a passage in a modern work, which is the more noteworthy because the accomplished author does not make any reference to the existence of such an idiom in any language, and perhaps was not aware of it.

"On entering into conversation with the (Red) Indian, it becomes speedily apparent that he is unable to comprehend the idea of abstract numbers. They exist in his mind only as associated ideas. He has a distinct conception of five dogs or five deer, but he is so unaccustomed to the idea of number as a thing apart from specific objects, that I have tried in vain to get an Indian to admit that the idea of the number five, as associated in his mind with five dogs, is identical, so far as number is concerned, with that of five fingers."* Thus it seems probable that the use of the *numeral affix*, whether in the Malay idiom or the old sporting phraseology, is an effort to realise this identity of abstract number by the introduction of a common concrete term.

The weakness of the marriage-tie, and the facility of divorce, is another feature common to the delineations of most of the tribes of both regions, and it appears to have remained totally unaffected by the introduction and general prevalence of Indian religion among the most civilised of their number, directly contrary as it is to the genius of Hindu society; just as the later influence of Mohammedanism has never been able, among either Malay or Burmese converts, to establish the seclusion of woman-kind, or the use of the veil. The marriage-tie in Java is, as Raffles happily expresses it, rather brittle than loose; it is easily dissolved, but whilst it remains it generally insures fidelity. Crawford mentions, in Java, a woman living with her twelfth husband. Among the Mantras, a rude people of the Malay Peninsula, we hear of men who have been married forty times. Among the Kasias "divorce is so frequent that their unions can

* Wilson's, "Prehistoric Man," (1st ed.) ii. 470.

hardly be honoured with the name of marriage." Among the Dayaks, "many men and women have been married seven or eight times, before they find the partner with whom they desire to spend the rest of their lives."

Among many of the tribes of both regions, also holds the rule that the husband enters the family of the wife, living with her parents and working for them. Such is the rule among the Kasias, in some parts of Java, and among the Dayaks of Lundu, in Borneo.*

A singular custom of inheritance, which we find here and there in both regions, is probably connected with this brittleness of the marriage-tie, if it does not go back to a still ruder relation between the sexes: I allude to the succession of the sister's son in preference to the son. On the continent we find this remarkable custom among the Kasias of the Silhet Mountains, and in the Royal Family of Tipura, on the edge of the Ganges Delta; among the islanders it prevails among many families of the Sumatran Malays.†

The savage mania of hunting for heads, generally by nocturnal ambuscade, and of treasuring them as trophies, is found with almost identical circumstances among the wild Dayaks and Kayans of Borneo and Celebes, and the wild Kúkis, Nagas, and Garos of the eastern frontier of Bengal, whilst traces of the same exist among the Battaks and some other races of the islands. As the Dayaks naïvely expressed the matter to Mr. St. John: "The white men read books; we hunt for heads instead."‡

The practice of tattooing has been too generally diffused to build anything on its existence. But there is an application of it so peculiar and remarkable, that it is worth while to notice its coincident existence among races, both of the continent and of the islands. This consists in covering the skin from the waist to the knee with dark embroidery; in fact, tattooing *breeches* upon the body. In spite of a thousand years at least, perhaps much more of Indian religion and influences, every male Burman is thus adorned. In Borneo, among certain tribes, the women have precisely the same decoration which makes them look, when bathing, says Mr. St. John, "as if they were all wearing black breeches."

An allied custom of introducing pieces of metal and the like beneath the skin, whereby the body is supposed to become

* "Journ. As. Soc. Bengal," as above, p. 624; "Crawford's Hist." i, 91; "St. John's Life in Forests," i, 50.

† "Journ. As. Soc. Bengal," as above, p. 625; Buch. Hamilton in "Brewster's Edin. Journ." ii. 51; "Life of Raffles, (4to.) p. 435.

‡ "Life in Forests," i, 67. The Kúkis in their descents on Kachár used sometimes to carry off 50 heads in one night ("Mills's Report on Assám," Calcutta, 1854, p. cxiii)

invulnerable, is mentioned by various mediæval travellers as existing in certain islands of the Archipelago ; and in our own day such amulets have been extracted from the arms of Burmese on several recorded occasions.

A superstitious abstinence from certain articles of diet, which is hereditary and binding among certain families only, is found here and there with remarkably coincident circumstances, among the tribes of both regions. Thus among the Kasias : "Some individuals and families have a superstitious objection to different kinds of food, and will not allow such to be brought into their houses." Among the Battaks of Sumatra : "Certain families abstain from certain food ; as one family from turtle doves, another from crocodiles, on the plea that they are descended from such animals." Among the Dayaks : "Several have an objection to eating the flesh of pigs, deer, and other animals, but it is because they are afraid of certain complaints (as skin diseases), and the custom becomes hereditary, as many families are subject to them ; or it arises from the fear of going mad," etc. The reasons given are evidently, as usual in such cases, *ex post facto*.*

The conservation of the bodies of the dead, especially of dead chiefs, for weeks, months, or even years, before burning or burying, is diffused over all the regions of which we speak, and has extended to China. Thus it is in Bali, among a people professing Hinduism ; in Burma, to a certain extent, among Buddhists, among the Kasias, Kúkis, Nagas, and Singphos.

The following passage from Crawford indicates a remarkable peculiarity. It applies strictly to the Burmese, as well as to the islanders of whom he speaks : "The salutation by touching the lips is wholly unknown to the Indian islanders. The parallel ceremony with them both expresses and implies *to smell*. This is universal among all the tribes. The same term always expresses, in every language, the action of smelling, and this singular mode of salutation. The head and neck are the usual objects of the embrace, the performance of which is always accompanied by an audible effort, corresponding with its literal import."†

Another very notable custom is the association of the whole of the families of one village or community in one or in several great houses or barracks. This appears to be general among some of the Dayak tribes of Borneo. St. John mentions one such barrack-house of the Sibuyan Dayaks on the Lundu River which was 534 feet long, and contained 500 souls ; whilst

* "Journ. As. Soc. Bengal," *n.s.*, 623 ; Van der Tuuk, *n.s.*, 76 ; "St. John," i, 72.

† "Hist." i, 100.

another village, of the Kanowit Dayaks, consisted of two houses, one of which was 200 feet, and the other 475 feet in length, with posts 40 feet in height, and 18 inches in diameter. The custom is also found among the rude natives of the Pági Islands off the West Coast of Sumatra, and among the people of the Korinchi Valley in the interior of that island. The very same practice is found among the Singphos, north of Burma, and among the Mekirs and Mishmis of the Assam Border. The single houses of the Mishmis contain from 80 to 160 persons. The Mekirs have the peculiarity that their barrack is not divided into apartments as in the other cases, but is merely a great hall.

In Borneo, as well as among the tribes of the Assam frontier, which we have just mentioned, we find also in each village one or more public halls, used for public ceremonies, but which also form the dormitories of the unmarried young men of the community, and serve thus as a sort of main-guard to the village. And in these halls, both in Borneo and in Assam, is often suspended the treasure of trophy skulls. Hence St. John often calls them "head-houses," sometimes "bachelor-houses." The same institution, or nearly so, seems also to exist among the Battaks of Sumatra.

Both where the barrack system prevails, and where it is absent, the custom of erecting the village dwellings on piles or bamboo posts at various heights above the ground is very general, from the frontiers of Tibet to the islands of the South Sea.* The late Mr. Crawford, in his great work "*The History of the Indian Archipelago*" (i. 159, *seq.*), after mentioning that the Malays and most of the people of Sumatra, Borneo, and Celebes build on piles, whilst the Javanese, Balinese, and some others build on the level of the ground, proceeds to say: "The distinction . . . has its origin in the different circumstances under which the two classes exist, and their different state of society. The maritime tribes inhabit the marshy banks of rivers and the sea-coast, and for the purposes of health their habitations *must* be raised from the ground. . . . The superior salubrity, natural to the well-cultivated countries of the agricultural tribes, renders the precaution of building on posts unnecessary," etc.

But some curious facts seem to show that, however the difference of practice may have originated, it has now got as it were into the blood, and may almost be regarded as a test of race, having often no traceable relation to local circumstances. The Bengalee inhabits a marshy country; his villages are for several months of the year almost lacustrine; but I think I am right in

* The remainder of this paragraph appeared some years ago in a letter of the writer's, printed in the "*Athenæum*."

saying that he *never* builds on piles; his floor is always the lap of mother earth; on the other hand the Indo-Chinese tribes on his eastern border, as far as I have seen them, *all* build on piles, though many of them inhabit mountains in place of marshes. In Silhet, for example, a region of vast swamps, inhabited by Bengalees, up to the very base of the mountains, the villages (unless they be of Indo-Chinese colonists) are built on the earth. The moment you enter the mountain country of the Kasias you find the houses elevated on piles, though in this case the height of the piles is small. Further south, the Khyens of the Arakan Yoma chain, at a height of 2,000 or 3,000 feet above the sea, raise their cottages on lofty stilts of bamboo. Their neighbours, the Burmese and Karens, always raise their houses from the earth, whether dwelling in high ground or low. Even in Java, whilst the true Javanese builds on the ground, the people of the Sunda mountain districts, a different race, raise their dwellings on posts. Indeed the remarkable difference in this respect between the Javanese and Malays may be an indication that they are *not* so closely related as is generally supposed. There are indeed some other notable points of difference, but combined with such similarities that the theory of a mixture of race in the Javanese would perhaps best account for the facts.

The modern discovery that the system of piled habitation was practised in lacustrine sites, at a remote period, by the inhabitants of Switzerland and North Italy, as well as other regions nearer home, is full of interest in regard to this subject. I have not heard of any instance in which traces have been found of the system of barrack association. And it is hardly possible that traces should have remained of the use of piled habitations in *non-lacustrine* sites.

The practice of ordeal by water is found, with a singular exactness of agreement in the circumstances, at intervals over both of the regions spoken of. Here are three notices of the practice written at long intervals of time. Says Mr. Fitch, an English merchant traveller in the days of Queen Elizabeth: "The Pegus, if they have a suit in the law which is so doubtful that they cannot well determine it, put two long canes into the water where it is very deep, and both the parties go into the water by the poles, and there sit men to judge, and they both do dive under the water, and he which remaineth longest under the water, doth win the suit." Valentyn, the reverend author of the voluminous history of the Dutch Indies, argued with some Christian chiefs of the Moluccas on the necessity of taking active means for the extirpation of certain heathenish practices. His arguments produced no influence on the minds of the chiefs, who were convinced of the *utility* of the practices in question.

"If," said they, "for example, in a trial the evidence is so equally balanced that we are at a loss to decide, and pass no sentence, the people will murder each other. To avert this, we must pronounce in favour of him who can continue longest under water." And with reference to the Kasias: "The water-ordeal used to be a common mode of decision. The opponents, with much ceremony, plunged their heads under water on opposite sides of a consecrated pool, and he had the right who remained longest under water. I have been told that it was lawful to use the services of practised attorneys in this mode of trial, so that long-winded lawyers have as decided a preference in these regions as they may have elsewhere." Exactly the same practice is found amongst the Dayaks of Borneo.*

Again, the custom that a father drops his own name and takes one derived from that of his child is frequent throughout the Archipelago, as among the Dayaks and Malays of Borneo, and it is also found among the Kasias.

No one can doubt the common origin of the music and musical instruments of Burma and Java, vastly superior as they are in spirit and in melody to anything now called music in India proper. If they had their common root in the latter country, it is a root which seems to have left no traces on its original soil. This last alternative may, however, be the true one, for there are many facts of an analogous kind in reference to other arts. Thus we find in the public and religious architecture of the more civilised nations of Indo-China, and of the Archipelago, a propensity to indicate importance and dignity in timber palaces and places of worship, by a multiplication of pitched roofs rising one over the other. In Java this ensign of dignity has passed from heathen times to Islam, and marks the mosque in the principal villages. There also, as applied to private or palatial residences, the number of these roofs, appropriate to each class, is regulated by inexorable custom; and precisely the same is the case in Burma and Siam. No trace of such a system remains, as far as I know, in India proper. Yet judging from the similar forms in Tibet and the Himalaya, from the evident imitation of them in the stone temples of Kashmir, and from the sculptured cities in the bas-reliefs of Sanchi, I should guess that the custom was of Indian origin.

The same explanation applies, no doubt, to the extraordinary similarity of dramatic entertainments as found in Burma, Siam, and Java. Thus for example, Crawford says: "The only persons who can be facetious by the rules of the Javanese drama are *Samar* and *Bagong*, the redoubted friends and servants

* "Fitch in Purchas"; Valentyne quoted in "Crawford's Hist." ii, 273; "Journ. As. Soc. Bengal," n.s., 627; "St. John," i, 191.

of *Arjuna* and *Rama*. The acting of the persons who represent these characters is less constrained, more bustling, and more natural than that of any others. So much drollery is frequently displayed as to convince us that the Javanese have considerable comic powers." Of this passage I was ignorant when I wrote of the Burmese stage as follows: "A young prince was almost always there as hero, and he as constantly had a clownish servant, a sort of Shaksperian Lance, half-fool, half-wit, who did the 'comic business' with immense success among the native audience, as their rattling and unanimous peals of laughter proved. It was in this character only that anything to be called acting was to be seen, and *that* was often highly humorous and appreciable even without understanding the dialogue." Though the drama is practically almost extinct in India, I have no doubt that we have here a genuine tradition of the Indian stage preserved in those two distant regions, perhaps for more than a thousand years. These shoots of ancient Indian arts, still alive on different foreign soils, whilst the arts have perished in India itself, form a remarkable matter for enquiry but they do not properly belong to the subject of this paper.

There is a custom common to Burma and to Java, of showing reverence by squatting down in the presence of a superior, rather than by standing. In the interior of Java when a Dutch official, of whatever degree, passes along the road, the native wayfarers duck upon their heels till he is gone by. In Burma, in a like case, they drop upon their knees.

There is also a custom of dropping or concealing the proper name of the king. This exists in Burma (and according to La Loubère) in Siam. The various kings of those countries are generally distinguished by some nickname, derived from facts in their reign or personal relations, and applied to them after their decease. Thus we hear among the Burmese kings of "The king dethroned by foreigners," "The king who fled from the Chinese," "The grandfather king," and even "the king thrown into the water." Now this has a close parallel in the Archipelago. Among the kings of Macassar, we find one king known only as the "Throat-cutter;" another, as "he who ran a muck;" a third, "The beheaded;" a fourth, "He who was beaten to death on his own staircase."

I suspect, however, that both these latter customs may have come originally from ancient India, like the arts of which we have spoken. But this will scarcely apply to another example of common practice, with which I shall conclude.

A very peculiar forge-bellows, entirely different from those employed either by Hindus or by Chinese, is found, in form absolutely identical, in Arakan and Burma, in Sumatra, in Java,

in the Philippine Islands, and in Madagascar. The description of this bellows as given by William Dampier at Magindinao applies absolutely, I believe, to its form in the other countries named: "They are made of a wooden cylinder, the trunk of a tree about 3 feet long, bored hollow like a pump, set upright in the ground, on which the fire itself is made. Near the lower end there is a small hole in the side of the trunk next the fire, made to receive a pipe through which the wind is driven to the fire by a great bunch of fine feathers fastened to one end of the stick, which closing up the inside of the cylinder drives the air out of the cylinder through the pipe. Two of these trunks or cylinders are placed so high together that a man standing between them may work them both alternately, one with each hand."*

A deduction may be made, I think, from the existence of this peculiar bellows at Madagascar, viz.: that the migration from the Malay regions to that island, of whatever nature it was, took place after the working of iron was known in the former. The nature of the relation of the Malagasi language to the Malay is a much disputed matter. That there was *some* relation was known very early, and it is referred to by John de Barros. The identity of a number of Malagasi words with Malay or Javanese is admitted by everybody. But W. Humboldt thought that he also discerned deep-lying organic resemblances between the Malagasi and the languages of the Indian Archipelago. Crawford, on the other hand, entirely dissented from this, and argued strongly against organic relation, attributing the introduction of the Malayan vocables to some fleet of rovers carried accidentally by the monsoon to the shores of Madagascar. He reckons the whole number of common vocables to be 168. The list exhibits several compound words whose coincidences are too complex to be due to organic connection of the languages, and could only have come by bodily importation. And the existence of a few words of Sanskrit origin in the Malagasi, not only is a convincing argument for importation as against affinity, but seems to show that the communication, accidental or otherwise, took place after India had begun to influence the Archipelago.

It is worth noting, with reference to this controversy, as an instance how even such eminent and truth-loving men may be biassed, that Humboldt speaks of the Malagasis as "a White Race;" Crawford speaks of them as "Negroes," and that after quoting a description which is not a description of negroes.†

* Quoted by Crawford, i, 187.

† "Kawi Sprache," i, 223, *seq.*; "Crawford's Malay Grammar," i, cxviii, *seq.*, cclxiv, *seq.*

The coincidences in manners and practices, that have thus been brought forward in detail, would singly be of no value as arguments for some original close bond of kindred between the races of the Indo-Chinese countries, and those of the Archipelago. Singly they are probably *all* to be found in remote regions of the earth. The Mexicans have the strange idiom of the *numeral affixes*; the Buraets of Northern Mongolia have the salutation by sniffing; the people of New Guinea and some of the Indian tribes of New Granada have the barrack-houses; various African and American tribes have the succession through the sister's child, and so on. But when thus accumulated they must surely be admitted to have great weight, and to be too numerous and striking, considering the comparative contiguity of the regions occupied by those races, and the physical resemblances which often occur among those of them the most remote from one another, to be due merely to the parallel development of isolated bodies of men in like stages of growth. But in putting forward the subject for discussion I have done all that it was in my intention or is just now in my power to do, and thus I leave it for the present.

DISCUSSION.

The PRESIDENT agreed with Colonel Yule in laying stress on some of the customs mentioned, as proving ethnological connection between the Indo-Chinese and Malay districts, though allowing with Mr. Laing that others, such as the wearing of large ear-ornaments and the exogamous law of marriage, were of too wide distribution in the world to be so argued on. With reference to the air-pump bellows, he remarked that the present paper had elicited the fact of its use in Assam farther into the interior of Asia than had been before known. It thus perhaps spread from a custom in the Chinese region, extending into the Malay islands and even to Madagascar. Waitz had claimed it as known in West Africa, but the speaker, on examination, found the bellows used there by iron workers not to be the eastern air-pump, but a bellows of more ordinary principle. He further argued in support of Colonel Yule that a custom might be widely spread over the world, and yet have such strength and prevalence in two neighbouring districts to help in establishing connection between them. Thus with the systematic use of numeral-nouns (of which he gave further cases from Chinese and Japanese "four swing of portmanteaus" "three post of gods") its prevalence belongs more remarkably to the Indo-Chinese and Malay districts than to any others.

Colonel GODWIN-AUSTEN: 1.—We are all, I am sure, much indebted to Colonel Yule for putting together the mass of interesting notes on the similarity of customs of peoples so far removed as those of the Malay Archipelago and the Hills of the north-east frontier

bordering Assam. Some of these customs I have observed myself; I may mention the fondness for fish in a semi-putrid state. We find the Garos, Khasis, and Kookis using it for food. Vast quantities are caught in the great marshes at the base of the Hills, dried in the sun, and are bought up by the above people. The smell of this "*sukti*," as it is called by the Khasis, is most offensive to us.

2.—The extension of the ear-lobe is another custom found among the Garos, where the women carry such a weight of brass earrings, the lobe often reaching close to the shoulder, and I have seen several instances where it had eventually given way.

3.—The preservation of the dead in honey, noted by Colonel Yule as a custom of the Khasis, Kookis, and Nagas, is I think confined to the first, and then only for the chiefs and men of wealth. I never myself heard of it among any tribe of the two latter peoples.

4.—One of the most interesting of the points alluded to by Colonel Yule is the bellows. It is generally made of two hollow cylinders of bamboo, placed vertically, and each fitted with a piston rod, attached to a disc of wood, on which feathers are fixed diagonally round the circumference, and worked alternately. I have seen such bellows in the outlying villages in the Khasi Hills, towards the north, and in the Kuki and Naga villages it is the only kind used.*

Mr. KEANE thought that, independently altogether of any arguments based on analogous customs, it would be safe to argue for a close connection between the Malayan and Indo-Chinese races, on the broad ground of their striking physical resemblance. The French anthropologists, who, owing to political causes, had of late years almost monopolised the field in Cochin-China, were disposed to go even further, and often spoke of an absolute identity of certain Cambojan and Annamese nations with the peoples of the Eastern Archipelago. Thus the Cham (Tiame) of the extreme south-east corner of the Asiatic Mainland were regarded by Dr. Harmand as "*Malais proprement dits*." The whole coast from Cape St. James northwards to Canton he thinks was originally occupied by a race akin to the Malays. Garnier also connected the kings of Camboja with the Oceanic stock; while Martinet concluded that the Mois, the collective name of the Annamese wild tribes, "*se rattachent de très-peu aux anciens habitants de la Malaisie*." It was a remarkable fact, that of all the Indo-Chinese races the Cambojans (Khmer) and the Kuys (Khmer-dôm, or "*primitive Khmer*," as the Cambojans called them) alone spoke polysyllabic languages. These languages had not yet been sufficiently studied, but when the old Khmer inscriptions on the ruins of Angkor-wat and Angkor-thom came to be interpreted, much light would doubtless be thrown on the mutual affinities of all these peoples. Meantime it might not be premature to regard the polysyllabic-speaking Khmer and Khmer-dôm as possibly destined to afford the required missing link

* The Khasis for their large smelting furnaces use a much larger and more powerful bellows worked by the legs, standing. The smaller bellows are used for making *daos*, spears, hatchets, etc.

between the present inhabitants of Malaysia, and the monosyllabic-speaking sub-Mongolian Indo-Chinese races—Annamese, Siamese, Laos, Burmese, Khasias, Mishmis, Abors, and so on, to the great Tibetan tableland, whence all seem to have originally descended, following the course of the great rivers furrowing the Indo-Chinese peninsula.

Colonel YULE: I have explained the accidental way in which these notes have come forward at this Society, and I am not prepared to enter upon any argumentative defence of their suggestions, which were made years ago, and are only of a tentative kind. But it must be remembered that I have not put the argument, such as it is, merely on the ground of identity of certain isolated customs, but cumulatively: (1) On the number of such coincident customs; (2) On the strong physical resemblance (every now and then approaching to *identity* of feature) which individuals of the great sections of the races in question exhibit; and (3) On their approximation to each other on the map of the world.

As to that part of the notes which touched on the dramatic coincidences; the fact is that the notes do mix up two different classes of coincident circumstances, which I would have disentangled if I had found time to revise this paper before making it over to the Society. One of these, and the appropriate one, is the coincidence of manners pre-historic in origin; the other is a series of coincidences, of which we must call the origin historic, though unhappily we do not possess its history. These latter coincidences belong not only to the drama, but to architecture, ceremonial, music, and the like. In architecture, especially, we find great works in Java, like the Boro Bodor pyramid, with its thousands of yards of elaborate bas-reliefs; in Camboja, the vast temples described by my lamented friend Lieutenant Garnier and others; in Siam, the remains of Ayuthia; in Burma, the great brick shrines of Pagán, which I have myself described; all of these, though with very distinctive features, possessing characters in common that indicate a common origin—an origin that we see *must* have been Indian, and yet in India we cannot, with confidence, identify the source in any existing remains.

But these developed and historic arts do not properly belong to my subject, and the notes bearing on coincidences pertaining to them ought to have been eliminated. They are nearer to literary archæology than to anthropology.

I will make one more remark. My friend Colonel Godwin-Austen has told us that the feather piston-pump used as bellows, the diffusion of which is so remarkable in the Indo-Chinese countries and the islands, is found also in the Kasia hills, adjoining Assam. The fact is new to me (or I must have forgotten it), though my earliest service in India was in those hills, and though I remember well another kind of bellows, formed like a couple of gigantic semi-cylindrical accordions, worked by the weight of a man or woman, or both, standing with a foot on each semi-cylinder, and swaying the body alternately from one to the other. This is used habit-

ually by the Kasias in their iron-smelting, and I described it long ago in the "Journal of the Asiatic Society of Bengal." The fact that the Kasias possess also the air-pump bellows of Burma, Sumatra, the Philippines, and Madagascar, is a very remarkable circumstance, and to have elicited that fact is perhaps the most valuable result of my crude notes. I thank the President and the Society for the kindness with which they have listened to them, and discussed them.

NOTES on FETICHISM. By HODDER M. WESTROPP, Esq.*

I HAVE been induced to lay before the Society a few desultory remarks which have been suggested to me in reading Professor Max Muller's Essay on Fetichism, which forms part of his history of the development of religion.

I myself wrote some time ago a paper on the cycle of development of religion. In this I endeavoured to trace the different stages of religion from its lowest phase up to the highest culminating point in the idea of a sole supreme deity; but I went further: I traced the decline and decay of religion, for it is my belief that all things that have growth and progress have a cycle of development, that is, pass through the stages of rise, progress, maturity, decline and decay. Of this we have ample proof in the religions of Egypt, Assyria, Persia, Greece, Rome; they have had their rise, progress, maturity, decline, decay and utter extinction, and it appears evident that there is marked decline in the religions of the present day. In "Chips," vol. i, p. 23, Professor Max Müller also notices the inevitable decay to which every religion is exposed.

With regard to the development of religion, my view is this—At the base of the scale of the development of religion there is a stage of practical atheism, an ignorance of God, of which there are several proofs among very low and degraded races. As Captain Burton remarks, "Atheism is the natural condition of the savage and uninstructed mind."

The first step upwards is fetichism, as Mr. Tylor defines it, a belief that a spirit is considered as embodied in certain material objects, as a stock or stone, and that such objects are treated as having consciousness and power, and are to be worshipped, prayed to, and sacrificed to. This is undoubtedly a phase of mind peculiar to a very low state of culture, whether negro or Portuguese, and consequently is found among all peoples in that low stage, whether in ancient times, or among the negroes, or among the ignorant and uneducated of the

* Read May 27th, 1879.

present day. The Portuguese "worshipping dauby images, handling rosaries," as Professor Max Müller describes them, with whom consequently the idea of a God was in abeyance, were as much Fetichists as the poor negro.

If we take the development of the individual man as an analogy to that of the human race, there must have been a time when the savage man had no belief in spiritual beings, as there is every certainty that a child of one or two years old, whose fallow mind may be considered a representative type of the savage mind in its earliest phase, has no idea of a spiritual being; there must have been a period when the mind of the savage man was in a blank and fallow phase, as we see in the child. Fetichism thus corresponds to that early stage in childhood when it attributes personality, its own life and consciousness to all material objects which it comes in contact with, a phenomenon often seen in children.

The next stage in the development of religion was nature-worship, or the adoration of the sun, moon, the elements, etc., then was evolved the personification of these, which led to idolatry, anthropomorphism, and polytheism; the development of religion passing through other phases in the ascending scale reached its highest stage in the final elaboration of the human mind, the idea of one absolute and supreme Godhead.

There is one phase of religion in the later stage of its cycle of development which I would wish to remark: a return to the lower beliefs of early ages, that is to fetichism. As man in the later stage of his cycle of development returns to second childhood, so religious belief returns to its primitive phase. Hence the reason we see the evidence of fetichism, in the later stages of religious development, and in the modern corruptions of the Hindoo religion, as remarked by Professor Max Müller, and, as he might add, in the Roman Catholic. For the doctrine of the real presence is in reality pure fetichism, as Mr. Baring-Gould defines it, "the concentration of spirit or deity in one point." The doctrine that a spirit is "embodied in, or attached to, or conveying influence through certain material objects," and hence the worship of stocks and stones. ("Primitive Culture," vol. ii, p. 144.)

Hume has, too, observed this phase. "It is remarkable," he writes, "that the principles of religion have a kind of flux and reflux in the human mind, and that men have a natural tendency to rise from idolatry to theism; and to sink again from theism to idolatry. The feeble apprehensions cannot be satisfied with conceiving their deity as a pure spirit and perfect intelligence, and yet their natural terrors keep them from imputing to him the least shadow of limitation and imperfection. They fluctuate

between these opposite sentiments. The same infirmity still drags them downwards, from an omnipotent and spiritual deity to a limited and corporeal one, and from a corporeal and limited deity to a statue or visible representation." Mr. Tylor makes a similar remark: "The history of religion displays but too plainly the proneness of mankind to relapse, in spite of reformation, into the lower and darker condition of the past."

Professor Max Muller observes that there are no traces of fetichism in the earliest hymns of the Vedas. These appear to me to have been written soon after the phase of nature-worship had prevailed, for as the Professor writes ("Chips," vol. i, p. 238): "In the Veda, the names of the so-called Gods or Devas betray their original physical character and meaning without disguise. The fire was praised and invoked by the name of Agni; the earth by the name of Prithri; the sky by the name of Dya. The sun was invoked by many names, such as Surya, Savitri, Vishnu, or Mitra. The moon was alluded to under the appellation of Soma." The Hindoos had, it is evident, then grown out of, and forgotten the phase of fetichism. It appears that at the time the Veda was written the phase of personification of the elements and powers of nature was beginning to be developed.

There is a passage in Professor Monier Williams' "Progress of Indian Religious Thought," which shows that fetichism, which appears to be an invariable first step in the development of religions in all countries, was developed in India in the Veda age. The following are his words: "It is certainly probable that fetish superstitions of the lowest type prevailed in India at the time when the Veda hymns were composed. Evidence of the existence of such superstitions is deducible from the Veda itself. In the Atharva-Veda divine powers are sometimes attributed to the ladle, and other wooden implements of sacrifice. Examples of this primitive form of religion are traceable in the superstitious observances of the Hindoos, from the earliest period up to the present day."

In an article on India in "Chambers' Cyclopædia," I found the following passage: "The Hindoos as depicted in their hymns (the Rig Veda) are far removed from the starting-point of human society, nay, they may fairly claim to be ranked among those already civilised communities experienced in arts, defending their homes and property in organised warfare, acquainted even with many vices which only occur in an advanced condition of artificial life." From this picture of Hindoo life in age of the Rig Veda, there would be consequently very little reason to expect to discover traces of fetichism in the Rig Veda. But if everything has a beginning, a first step in its progress towards

maturity, Indian religious thought must have had as an initial step a phase of fetichism in its first crude stages.

Professor Max Müller puts the questions: "Whence came the idea of anything invisible, say a spirit, to be embodied in certain material objects? How can we get trustworthy accounts of the present state of religious thought among savages and, what is most important of all, of its antecedents and origin?"

The only origin I would suggest for the idea of anything invisible to be embodied in "a certain material object" is that it took its rise in that analogous phase in childhood, when it attributes life, feelings similar to its own, to material objects. The savage (a child too) does the same. In considering the notices by travellers of religious thought among savages, we must take into account the period and the phase of thought developed at the period when the notice was written. The phase of thought among certain savages, for example, may have been different at the time of Captain Cook and other travellers, and at a later period. Even among savages there is evidently a progress in the development of religious thought, and in the course of even 100 years they may have advanced a good deal.

Professor Max Müller quotes Mr. Tylor's notices of the contradictory accounts of writers in their statements with regard to religious thought, viz.: in Germany, the most ancient instance on record, he says, is the account given of the religion of the Germans by Cæsar and Tacitus. Cæsar states that the Germans count those as Gods whom they can perceive, and by whose gifts they are clearly benefited, such as the sun, the fire, and the moon. Tacitus declares "that they call by the names of Gods that hidden thing which they do not perceive except by reverence," but it must be remembered that near 150 years intervened between the times of Cæsar and Tacitus, hence I would say the reason of the difference of phases described. In Cæsar's time the Germans were evidently in the phase of nature-worship. In the age of Tacitus they had, it is clear, grown out of that stage, and had developed a higher phase of religious thought.

We might remark the same contradictory beliefs, the same inconsistencies in the Vedas (though bearing the same name), for in them there appears to be different phases of thought, but it is evident this is from their being composed at different periods. In the earlier hymns nature-worship is evident, "a more childlike state in the history of man," as Professor Max Müller writes; while in the later portions we find a higher idea of divine and supreme power, such as that of Varnua as Lord of all—of heaven and earth. Professor Max Müller in his article on

the Veda assigns 1200 B.C. as the earliest time for the Vedic hymns, and in the opinion of the author of the article in "Chambers' Cyclopædia" on India, the latest writings of the Vedic class are not more recent than the second century. There must consequently have been many phases of thought and religious development, and many contradictory beliefs in a thousand years.

It appears to me that fetichism does not consist, as Professor Max Müller observes, in cherishing the bones or hairs of the departed, in the reverence of any particular object, as a stock or a sceptre, but it consists in attributing to any object, life, consciousness, a power to do good or evil, a power to grant prayers—in fine, a human will and mind. A savage when he prays to his fetish does not do so for the sake of cherishing it, it is for the purpose of obtaining an answer to his prayers from an object which he thinks is endowed with a human will and mind, and has a power to grant them.

Fetichism has two phases—the first phase is when a savage attributes life, consciousness, personality, a power to do good or evil, a power to grant his prayers to any object, a stone, etc., as he does to his father, or to some person in authority, but this does not imply that he considers his father, or the person in authority, a god or spirit. The savage merely recognises in the stone a power like that of a person in authority to grant his prayers; he has here no idea of a god or spirit; he transfers by analogy the power which he sees in a human being in authority to the stone or other object.

The second phase is when a spirit, a god, a power from on high is supposed to dwell in an object, and which consequently ought to be worshipped and propitiated; the savage again reasoning from analogy to the reverence and respect which is paid to a person high in authority and power (the Semitic name for god, El, means the powerful one, the person in authority). When the savage reaches this stage he must have some idea of spirit or power above man. This conception of a spiritual agency, as a writer in the "Times" says, grows gradually from the sight of invisible power in nature, and from the inevitable connection of the idea of force with the idea of will.

The idea of a superior power, a god in the mind of primitive man, is an induction resulting from his perceiving so many powers in nature superior to man, such as the sun, the sky, the storm, lightning, etc. The conviction thence arises in his mind of the existence of a power which he endows with personality, with a higher human will and mind, and which ought, reasoning from analogy, to be worshipped and propi-

tiated, as he reverences and propitiates a man high in authority and power.

The idea of a deity, a mind, an intellect, pervading and governing all nature by fixed and invariable laws, is that grand induction which arises alone in the philosophic mind, resulting from the proofs of the supremacy of law, the evidence of design and order, and the presence of beauty and harmony in the entire system of the universe.

The savage worshipping a rude stone that it may grant his prayers, belongs to the first phase of fetichism; presenting food to a tree, because the fetish, an invisible spirit, dwells in it, belongs to the second.

The instance of a negro tribe, mentioned by Professor Max Muller, which believes in gods or in a supreme god, is an instance of a tribe that has grown out of fetichism; and to use the words of Waitz, has "progressed much further in the elaboration of their religious ideas."

Fetichism may be, however, retained in a higher phase of religion, as Professor Max Müller observes, among the Hindoos, and as may be observed among the Roman Catholics of the present day, worship of the host, in which the deity is supposed to be present, is pure fetichism of the second phase.

In Professor Max Muller's lecture he remarks that the Hindoos could not have passed through the fetichistic phase, as there is no trace of fetichism in the Veda; he might just as well say the Greeks never passed through a Stone Age, as there is no mention of stone weapons in Homer. We have, however, plenty of evidence that the Greeks did pass through that stage, from the number of stone implements found in Greece.

A writer in the "Times" also remarks that everybody will not be satisfied with the lecturer's inference—that the earliest religious creed of uncivilised tribes cannot have been fetichism, because the Vedic hymns are free from that form of superstition. The Vedic hymns may have been written 3,000, 4,000, or perhaps 5,000 years ago. But we dare say Professor Max Muller believes that the human race was old even when the Vedic hymns were composed; and how can they bear witness to the belief of the unrecorded antiquity?

Everything must have had a beginning: language is traced to its first phase in inarticulate sounds, expressive of human wants, which were the roots and germs of words; writing to its earliest formation in picture drawing; nations to an early Stone Age, traces of which are found all over the world; and religion to its earliest phase of fetichism.

Professor Max Muller puts the question: How do people pick up the concepts of a supernatural power, of a spirit, of a god in a

stone or shell? The question may be also put, How do children, savages, uneducated people, pick up a belief in spirits and ghosts? These ideas appear to be natural instincts peculiar to human nature, which spring up spontaneously, like weeds, in the minds of the rude and uneducated all over the world; but we can no more discover their origin than we can tell why certain weeds spring up in a poor soil.

My position would be this: That those who believe in a primordial fetichism must take it for granted that human beings passed through a rude and primitive phase when their minds were naturally and instinctively endowed with certain vague ideas of spirits and ghosts, which seem to be the spontaneous outgrowth of minds in a rude and primitive phase in all countries and ages. In the same way we must take it for granted that every human being must have passed through a stage of infancy.

Mr. Tylor writes me: "It is very unfortunate that fetichism has come to mean two different things, viz. :—

"I. *Personification of objects*, or treating lifeless things as alive and personal.

"II. *Possession of objects* by spirits or souls, so that they become divinely active, and to be worshipped. It is in this second sense that I have most looked into fetichism, but in this sense you will see by primitive culture that I do not regard it as the original stage in the development of religion, but as a secondary stage arising out of animism. It is this animism, the doctrine of souls and spirits, arising out of a combination of the notion of life with the images seen in dreams, that I look upon as the fundamental fact of theology." He here gives, as I have already pointed out, the two phases of fetichism; the first of which appears to be the initial steps towards the development of religious thought; the other is evidently, as Mr. Tylor writes, a secondary stage.

Professor Monier Williams, in his "Progress of Indian Religious Thought," appears to me to describe the first stage of fetichism very accurately: "It seems that fetichism must be described as the religion of the childhood of the human race. A child makes a fetish of a doll, or of any other plaything when it animates it with life and personality, and talks to it as if it were a living being, capable of human feelings and affections. A savage makes a fetish of any roughly-carved block of wood or useful object, when he animates it with a soul, addresses it as it were capable of understanding human language, asks it for a boon and abuses it if his prayer is not granted." In the second stage of fetichism, when a spirit is supposed to dwell in an object, Mr. Tylor's term of "animism" might be more properly adopted.

DISCUSSION.

Mr. KEANE differed altogether from Professor Max Müller in so far as he regarded fetichism not as a corruption of a high form of religion, but as the starting-point of all religion. It was based essentially on ignorance, fear, and want; ignorance of the real causes of outward phenomena, fear of the consequences, want of the necessities of life. It arose with the first awakening of conscious thought in the infancy of mankind, and was in principle an extension of the still faintly developed conception of the *ego* to external objects. Ignorant of the causes of lightning, floods, gales, and overawed by their injurious effects, the savage instinctively attributed life, will, intelligence, to these phenomena, and to the natural forces generally. In short, he personified, animated, endowed them with human faculties, and with the power of injuring or benefiting, whence the necessity of propitiating them. But all this seemed ultimately to resolve itself into the primary idea expressed by the words personification, animism, anthropomorphism, fetichism itself, words which in this connection he had never been able very clearly to distinguish in his own mind, and of which he would be glad to have accurate definitions.

Mr. BERTIN remarked that this belief in a soul or shadow, for even material objects appears spread all over the world; as it is well known the Red Indians gave soul to the objects, and the shadow of the dead carried in his next life the objects buried with him. The same belief is noticed amongst the ancient Egyptians; this soul or shadow is called *Ka*, which is translated, perhaps wrongly, living "image," it should rather be "spiritual image." The Egyptians seem to have believed that the body and the soul had a *Ka*, for in the book of the dead, the soul (under the image of the bird) and the body are both taking the drink of life. The Egyptians used to swear by the *Ka* of the king, looked upon as more sacred still than the real body. The same belief existed to a very small extent among the Assyrians. But the Greeks carried it very far, as it is seen in Homer. Plato, in the *Gorgias*, seems to have reversed the theory: for him, this world is only the faint image, the shadow of one higher and more substantial.

He did not think there was any doubt that, as said in the paper, all self-grown religion started from fetichism, and decayed to be replaced by a higher religious form. Every special form of religion must grow and decay, as every man grows and dies; the humanity does not die with him; so survives religion. The new forms, the new *cultes*, as is very well expressed in French, borrow from the decayed ones, as the new generations borrow from the preceding ones.

*On the KABI DIALECT of QUEENSLAND.**

(Extracted from a communication to Professor Max Müller, Oxford, by John Mathew, Esq., dated Mount Rothwell, Little River, Victoria, 10th Feb. 1879.)

DURING a residence of five years on a station in Queensland, I acquired some knowledge of an Australian dialect called by the natives who speak it, Kabi; I managed to learn something of its structure and to compile a vocabulary of some 600 words. Although I have no pretensions to being a philologist, I have remarked some peculiarities about the aboriginal dialects, about Kabi particularly, which so far as I am aware have been overlooked by writers on the subject.

Kabi is spoken in that part of the Wide Bay and Burnett Districts in Queensland popularly known as the Bunya Mountains. The Bunya is a conifer, the *Bidwellia Araucaria*, bearing a huge cone the seeds of which are covered with a fleshy part which the natives eat. Such is their liking for this edible cone that they assemble in large numbers from a radius of about 200 miles to feast upon it when in season.

Kabi, like most names of the dialects, is a negative. There are two or three other dialects closely allied to it, notably one called Waka, and another called Dippil. Of the latter the Rev. W. Ridley gives a vocabulary of about 250 words. The subjoined remarks consist of striking characteristics, a few analogies, and some remarks on the grammatical construction. Aboriginal words from other dialects than Kabi, I have taken mostly from vocabularies of the Rev. W. Ridley and Mr. Bunce. I have used in Kabi words the Missionary Alphabet proposed by you.

The Australian dialects are, I believe, generally spoken of as *agglutinative*. If, however, it be possible for a language to be classed as *isolated* although having a majority of its words composed of two syllables, such a language is Kabi. Certainly the personal pronoun and the verb show inflections. But setting these instances aside, the words of two syllables are almost without exception accented on the first, the second syllable is perhaps merely euphonic, and I cannot think of any dissyllabic word which is separable into two distinct words. Again, the verb has certainly no termination indicating number, probably none indicating person, and the nominative, substantive, or pronominal, is almost invariably expressed. Further on in

* Read May 27th, 1879.

this letter I shall cite examples of the juxta-position of two words not monosyllables, say a noun and adjective giving one adjectival idea and yet the words separable, and when used separately conveying meanings from which the meaning of the two in juxta-position is very evident.

The terminations in *Kabī* are abundant, but, a very few excepted, they have no significance. Perhaps also the manifest aversion which the native ear has to final consonants may account for the abundance of terminations. You say in your "Survey of Languages," p. 134, that Professor Schiefner, of St. Petersburg, remarks that no word in the Tush begins with *r*, and you say that applies to the Samoiedian, etc. It also applies to *Kabī* and I believe to all the Australian dialects; *l* as an initial letter is entirely absent in *Kabī*. The aspirate *h* as a single letter is wanting. There are no pure sibilants. The palatal *ch* as in "church" is wanting. As regards its final letters, they are limited to (1) the liquid, (2) the nasal *ñ*, (3) *ñ* dentated, that is to say, coalescing with a following subdued dental, and (4) vowel sounds. Again the nasal *ñ* and the aspirate *th* occur so frequently in all the aboriginal dialects as to be little else than sounds of convenience. The native ear being prejudiced to initial vowels, the nasal often introduces words which appear originally to have begun with a vowel, as *arōñ* or *narōñ* (mother) In other cases it displaces *m* and *n*. If ever sibilants had a place in the language, dentals appear now to have usurped it. Medial gutturals seem of little moment, for they are captiously omitted or introduced. Duplication is excessively prevalent.

The dialects other than *Kabī* from which I have obtained analogies are—*Kamilaroi*, spoken in South West Queensland; *Wiradhuri*, spoken in Castlereagh and Wellington, New South Wales; *Wailwun* on the Barwon River; *Turuwul* at Port Jackson; *Pikumbul* on the Weir and Macintyre Rivers; *Kingki* on the Darling Downs, Queensland; and some others named after the localities where spoken. The *Kabī* verbs are given mostly in the imperative mood.

I. *Yena*, "go." Other Australian dialects, *yan*, George's River; *yannathin*, Melbourne; *yannayee*, Castlereagh; *Yakoi*, "come here!" may be from *ya* and *kari*, "here." In the imperative *yena* the stem vowel is *e*, but in all the other moods the stem vowel is *a*, as *yanman*, *yanmathi*, infinitive forms "to go," also used as indicatives, *yandiriñ*, "to perambulate."

II. *Ba*, "come:" *bugaman* is another form of *baman*, "to come," indicative and infinitive of *ba*. There is a compound word *biyam-gaiyo*, meaning "to come back," in which *biya* is a prefixed adverb meaning "back," so

probably *gaiyo* means motion. The syllable *go* used after a word, whether attached or no I can scarcely say, with the signification of motion occurs frequently as *yangō*, "to go;" *kiragō*, "to go for fire;" *kuñ go*, "to go for water" etc.

- III. *Bari*, "bring."
- IV. *Yu*, "speak." In Australian dialect, *goāl*, Kamilaroi; *yumbunna*, Melbourne; *yauai* is Kabi for "yes," in Kamilaroi the word is *yo*. In Kabi *yamñoman* means "to rage, scold."
- V. *Yeli*, "speak, tell;" *yeli* is probably from the same source as *yu*, it has derivatives *biyeliman* (*biya*, "back," lit. "to call back") to "cooey," and *yelelman*, "to speak quietly."
- VI. *Burīmī* or *burīmathī*, "break." Australian dialect, *Kalburnin*, Melbourne. The past participle of *burīmī* is *burīn*.
- VII. *Dhā* or *dhāii*, "eat." Australian dialect, *talī*, Kamilaroi; *thangarth*, Melbourne; *dagoon*, Snowy Mountains.
- VIII. *Dhāṅgā*, "tooth or teeth." Australian dialect, *tanah*, Condamine River; *dhāṅga*, "teeth or mouth," Cunnamulla, West Queensland, "food," *bindha*, Kabi; *di*, Kamilaroi; *dhin*, Wiradhuri.
- IX. *Dhā*, "ground, dust, country." Australian dialect, *taon*, Kamilaroi; *tagun*, Wailwun; *dargum*, North West Coast. Probably connected with the foregoing is *dhake*, "a stone;" *dhān*, "a black fellow."
- X. *Kam*, "head, top." Australian dialect, *ga*, or *kaoga*, Kamilaroi; *kuboga*, Wiradhuri; *kabura*, Turruwul; *kabui*, Pikumbul; *kabui*, Darling Downs, Queensland; *katta*, West Australia.
- XI. *Pabuin*, "father." Australian dialect, *buba*, Kamilaroi; *babbin*, Wiradhuri; *buba*, Wailwun; *biāna*, George's River; *babunna*, Turruwul; *marmoonth*, Melbourne.
- XII. *Kirar*, "a man." Australian dialect, *kūwir*, Kamilaroi; *gibbir*, Wiradhuri.
- XIII. *Balun*, "dead, failed." Australian dialect, *balun*, Kamilaroi; *balungall*, Kingki; *murmball*, Melbourne. Kabi *bumbālin*, "fall."
- XIV. *Warkun*, "crooked." Australian dialect, *wara wara*, Kamilaroi.
- XV. *Wurañ*, "wrong, bad." Australian dialect, *warai*, Wailwun; *weri*, St. George's River; *wirra*, Turruwul.
- XVI. *Dhirañ*, "leg." Australian dialect, *durra*, Kamilaroi; *thirrang*, Wiradhuri; *durra*, Wailwun; *thurrong* ("the

calf") North West Coast; *tharra*, Grafton Range; *thirrong*, Melbourne. The word *dhirañ* being applied to the longest member of the body, to branches and roots of trees, to tributary creeks and to mountain spurs, it perhaps originally meant "long." This view is supported by the form of the Kabi word *gōran*, "long."

- XVII. *Bindamathī*, "to marry."
 XVIII. *Kawun*, "to love, like." Australian dialect, *kuai*, Kamilaroi; *caandect*, Melbourne.
 XIX. *Yaŋga*, "to do, make."
 XX. *Wuru*, "before."
 XXI. *Bubai*, "to stand."
 XXII. *Na*, *nai*, or *numñan*, "to see." Australian dialect, *ngummi*, Kamilaroi; *nganna*, Wiradhuri; *narga*, Pikumbul; *nangana*, Melbourne.
 XXIII. *Bariya*, *bariyir*, or *baritha*, "the top, above."
 XXIV. *Dhurumi*, "to swell."
 XXV. *Nienaman*, "to be, remain."

For some grammatical characteristics there is no article; adverbs do the work of conjunctions and prepositions. In substantives the same form is both singular and plural. What might appear to be case terminations are, I think, in most instances, terminations of euphony. Such terminations are interchangeable and numerous; hence if they were regarded as indicating case there would be multitudinous cases and declensions. The affixes *no* and *ro* frequently indicate possession but are not thus used exclusively. I shall now give a paradigm of the personal pronoun in Kabi.

		SINGULAR.	PLURAL.
1st.	Nom. ..	<i>Nai</i> , <i>atdhu</i> , or <i>natdhu</i> , I ..	<i>Nalīn</i> , we (you and I).
	Pos. ..	<i>Nanyūŋgai</i> , my or mine. ..	<i>Nalinnō</i> , <i>Nalinñur</i> , our or ours.
2nd.	Obj. ..	<i>Nanna</i> or <i>natdhu</i> , me. ..	<i>Nalin</i> , us.
	Nom. ..	<i>Nindhu</i> or <i>ain</i> , thou. ..	<i>Nulam</i> , you.
3rd.	Pos. ..	<i>Ninyūŋgai</i> , thy or thine ..	<i>Nulamō</i> , your or yours.
	Obj. ..	<i>Ninna</i> , thee. ..	<i>Nulambōla</i> , you.
4th.	Nom. ..	<i>Nunda</i> , he, she, or it. ..	<i>Dhinabu</i> , they.
	Pos. ..	<i>Nundanō</i> , his, &c. ..	<i>Dhinabunō</i> , their or theirs.
5th.	Obj. ..	<i>Nundabōla</i> , him. ..	<i>Dhinabubōla</i> , them.
Duals:		<i>Nulam</i> , another and I; <i>bula</i> , you two. <i>Nupu</i> , you all; <i>mitdhi</i> , self.	

Adjectives are sometimes formed from nouns by affixing the syllable *ñur*, which means belonging to, made of, or like, as *wulwi*, "smoke," *wulwiñur*, "smoky;" *bōkka*, "horn, projection," *bōkkañur*, "horned," etc. Sometimes nouns and adjectives compounded or placed in juxta-position are used adjectively, as *kawun kabi* (lit. "desire wanting"), "indolent, lazy." Some-

times nouns and verbs are similarly employed, as *ñaiya balun* (lit. "breath failed"), "tired." The last example by adding *ira* becomes a transitive verb signifying "to tire." The difficulties in the way of conjugating the verb seem insurmountable; I doubt whether it can boast a passive voice. It has an infinitive generally in *man* or *mathi*, which is also a present participal and an indicative form. The past and future indicative are commonly indicated by an adverb or by the context. There is a termination *ra* expressing futurity, but occurring rarely.

There seems to be an interrogative or optative mood having only one tense. The imperative has only one tense and seems to be the root with a vowel affixed. The past participle is in *an*, *in*, or *un*, it is used sometimes as a past indicative and without a copula serves as a passive voice. This use is rare. I could furnish examples to substantiate the above remarks as well as to prove the following—that subjects of verbs get terminations almost as often as objects, and that objects of any one class, say datives, receive varied terminations. Observe the form which a naturalized verb assumes; the verb to *wash* becomes *washi-mkirañalithin*.

The syntactical order of words is subject, indirect object, object, adverb, verb. The adjective almost always follows the word which it qualifies.

Some of the idioms are noteworthy. The affections are attributed to the state of the stomach, *nōlla kalañur* (lit. "stomach good"), "cheerful;" *nōlla dhandurban* or *dhandarbathin* (lit. "stomach smooth or slippery"), "pleased;" *nōlla kiyaṃan* (lit. "stomach biting"), "sorry." Deafness is curiously confounded with madness, thus *pinuñ gulum* (lit. "ear or ears blunt") means either "deaf" or "mad." Many feelings are named from their physical phenomena, such are *mī kurin*, (lit. "eyes burning"), "giddy"; *mī kambīman* (lit. "eyes to hide"), "jealous"; *muru wōmbalīman* (lit. "nose uplifted"), "frowning;" *pīnañ aluman* (lit. "ears to die"), "to forget."

PALEOLITHIC IMPLEMENTS *from the VALLEY of the BRENT.*
By WORTHINGTON G. SMITH, Esq., F.L.S., &c.*

HAVING last summer (1878) found a considerable number of palæolithic implements in the valley of the Lea, in the north-eastern part of London, I determined last autumn to search well over the valley of the Brent, in the north-western part of the Metropolis, both the Lea and the Brent being affluents of the

* Read June 24th, 1879.

Thames. My attention was especially directed to the valley of the Brent by the discoveries of General A. Lane Fox in the gravels belonging to the Thames at Acton, Ealing, and Ealing Dean.

As with the Lea, I have many times traversed nearly the entire course of the Brent; in this instance from Brentford to Twyford, and I have repeatedly examined the excavations in the valley. I have, however, only found a few palæolithic flakes in other than two positions. These positions are east and west of the banks of the Brent at Hanwell. Here there are two pits of considerable size, the surface at each place being about 80 feet above high-water mark. The larger of these two pits (known as Mr. Gibson's pit) is near to and west of the Brent, west of Hanwell, and close to the Greenford Road. It extends over some 20 acres of ground; 8 feet of the surface (consisting of loam and gravel) has been removed in past times from the entire surface, and the men now dig out an additional 22 feet, making about 30 feet of excavation in all. The base is seldom reached, and with the exception of having a greater quantity of tenacious red clay in its composition, the gravel of the Brent at Hanwell resembles the same material belonging to the Hackney Brook at Shacklewell, the Lea at Clapton, and the Thames at Acton and Ealing. It is intercalated with seams of fine river sand in the same manner as the above-mentioned gravels, and it has the same black ferruginous seams, but I have failed to detect any bones or molluscan remains, either near Hanwell or in any other position in the Brent valley.

The second pit (known as Mr. Seward's pit) is near to and east of the Brent, it is half a mile south of Hanwell, and lies on the east side of the Boston Road, towards Brentford; it has an extent of about 4 acres, and when it is excavated to a depth of 14 feet the London clay is reached. In both these pits I have seen flakes and cores *in situ*, as well as in the newly excavated gravel; the worked flints occur in all parts of the gravel, and they are more abundant in the Boston Road than in the Greenford Road pit.

In both pits a stratum of loam becomes in places intercalated with the gravel, so that in some places a distinct stratum of loam may be seen underneath gravel; this lower deposit is however not older than the upper, but of the same age, for I have seen the two seams confluent.

The gravel from the larger pit (Mr. Gibson's) has of late been spread over the roads to the west, as far as Southall, and in this material I have picked up several flakes, but no finished implements. In the pit itself I have been more successful, for in addition to flakes and cores, I here found in gravel just

excavated a massive pointed implement weighing 2 lbs. $4\frac{1}{2}$ oz. The discovery of this implement was somewhat remarkable, for it came out of the lowest depth of the pit, some 30 feet beneath the original surface. It was disinterred from a stratum consisting almost entirely of oval pebbles, no large or sub-angular stones being present. As far as my experience goes it is very unusual to find implements in a stratum of this nature, and with one exception I have never met with any worked-flints from a deposit consisting entirely of oval pebbles. There is, however, a layer of this nature belonging to a lower terrace of the Lea, east of Stamford Hill, in the north-eastern part of London; and amongst the oval stones from this place I some time since found a much-rolled basal half of a well-made pointed instrument.

The gravel from the Boston Road pit (Mr. Seward's) has been carted away in large quantities, and spread over the roads at Cuckoo Hill, on roads between Ealing, Perivale, and Hanwell, and on one of the roads at Eaton Rise, near Ealing Dean. I have repeatedly and carefully searched over these roads, and the result has been the rescue of one massive ovate implement, perfect, seven pointed implements, all perfect or nearly so, two flakes worked to an implement-like form, and a large number of common flakes of all descriptions and sizes. The pit itself has produced numerous flakes and cores, and one perfect pointed implement found by a workman (instructed by me) in his sieve. Of the flakes, although I have given a large number away to friends, I still have 57 left. Neither implements or flakes have, however, been found by me without a good deal of very hard work and a considerable amount of walking about and searching, for I have several times been over the gravels for an entire day and found nothing.

The second heaviest instrument found by me in the Brent valley gravels weighs 1 lb. $6\frac{3}{4}$ oz.; average specimens of the remainder weigh about 9 ozs. each. The most massive flake weighs $1\frac{1}{4}$ lb., whilst the lightest flake which has three faces to its wrought side, and a distinct cone of percussion on its plain side, weighs only one-fifth of an ounce.

In excavations made near the present level of the Brent, palæolithic remains appear to be absent, or nearly so.

I have carefully searched in the Hanwell pits for specimens of bone, wood, hair, and old vegetable material, but at present without result.

It may be well to warn archæologists against supposing that gravel found in the roads of any particular district (especially in and near London) belongs of necessity to the spot where it is laid down. The contrary is often the case, and nothing is more

common than to find gravel from one place thrown down in another and perhaps far distant position. Hundreds of tons of Hertford and Ware gravel may be seen in the roads close to the gravel pits of Shacklewell and Clapton. Builders are now digging gravel at Battersea and Clapham, whilst in the neighbouring roads are deposited many tons of gravel brought from the neighbourhood of Dartford. The Shacklewell and Clapton gravel has been distributed over several districts about London, and the excavated gravel of Acton, Ealing, and Hanwell is taken in various directions. On the other hand a great deal of the gravel recently laid down at Acton has been brought there from a long distance. The explanation of this fact is that parish officials and builders are always ready to purchase gravel at the lowest price. I have known a penny per load turn the balance in favour of gravel brought from a distance. After some experience one soon learns to know the different gravels at sight, even when seen from a distance; the same experience will often teach one whether the drift under examination comes from a high or low river terrace.

A word of caution may not be out of place against giving too much weight to isolated facts—facts though they may be; and as an illustration of this I will mention in conclusion an experience of mine which would no doubt with some persons have served as a proof of the past existence of Tertiary man. In certain places near where I live, at Highbury, the London clay comes to the surface, and it is singularly free from stones. Now, whilst watching some excavators engaged in digging a drain last summer between here and Clapton, I saw a mottled stone sticking out of a clod just shovelled from a deep trench made in the London clay. On taking the stone out of the clod, it proved to be a very good, unrolled, ovate flint implement. How this isolated stone, and that an instrument made by man, got into the perfectly undisturbed London clay, I am of course unable to say for certain, but I can say that in the immediate neighbourhood there are palæolithic sands and gravels which at one time must have swept over the London clay. The specimen mentioned probably sunk into the wet clay at the time of the deposition of the neighbouring sands and gravels, in both of which strata it is common to find bands of London clay intercalated. But under any circumstances the complete isolation of this single instrument is very curious.

DISCUSSION.

Mr. LEWIS said the idea which Mr. Worthington Smith had so successfully worked out, of searching the newly-gravelled roads in the suburbs of London, had occurred to himself many years ago,

and, when passing a newly-gravelled road, he had always looked closely at it to see if he could find any palæolithic implements, and, though he had not followed up the idea in the systematic and industrious manner in which Mr. Worthington Smith had, he could confirm his statement as to the rarity of the implements. Just about five years previously he (Mr. Lewis) had found a very nice implement of an axe form on the Wickham Road, New Cross, which he was unable to exhibit as it was then in the collection of their distinguished ex-President, Dr. Evans; and from that time he had found nothing till a month or so before that meeting, when, being at Forest Gate (next Stratford) on business, he found much building going on, and the gravel, which came close up to the surface, being dug out for cellars, and from a heap of gravel so thrown out he took an implement of a pointed spearhead form (which he then exhibited), and which, as he understood, was the first recorded from that locality. It could not have been buried more than 7 or 8 feet below the present surface. He also exhibited for comparison a stone from the same heap, which, though of natural formation, was very like the worked implement in shape.

PORTSTEWART *and other* FLINT FACTORIES *in the* NORTH *of*
IRELAND. By W. J. KNOWLES, Esq.*

I THINK it was in the summer of 1871 that my attention was first drawn to the sand-hills near Portstewart, by a friend who showed me an arrow-head he had found when walking among them. He had sat down on a stone to rest, and seeing flint flakes scattered about, looked around, and soon his eye rested on an arrow-head. Shortly afterwards I went in search of the place which he had described to me, and in walking over the hills, came on a large hollow or pit which was about 50 feet in depth from the surface of the sand, and fully 100 paces broad in the bottom. In the centre of the pit there was a little mound, on the top of which rested about a dozen small boulders, such as one could easily lift, and the surface all around was closely covered with flint flakes, cores and hammer-stones, among which were many scrapers and other manufactured objects. I brought away upwards of fifty on my first visit, and shortly afterwards went again, when I discovered other pits, some of which were smaller, but all were nearly similar in character. There was generally a little mound in some part of each pit with a few boulders on the top, and flakes and other objects scattered on the surface.

I repeated my visits at short intervals during the next two or

* Read June 24th, 1879.

three years, and collected a great quantity of manufactured flint objects, hammer-stones, bored-stones, broken pottery, teeth and bones of various animals and shells of different kinds, all mixed up with the flint flakes and wrought implements. The hunt after these objects was most fascinating. The pits never seemed to get exhausted of their stores. If I cleared them out to-day I was sure to get a new lot on my next visit. At first the place was a perfect puzzle to me. There was the little mound in the centre of the hollow with the few boulders on the top which had evidently been used as hearth-stones, and all around there was the evidence of a busy trade having been carried on in the manufacture of flint implements. Nothing seemed displaced, but everything appeared to be in the position in which it had been left. It really looked like a place that had not been long deserted. I soon found out, however, that the pits had not always remained as I saw them, for in some places at the sides I found little platforms with a floor more solid and of darker material than the surrounding sand, on which rested stones, flakes, and other objects similar in kind to those found on the surface of the mounds already mentioned, and on tracing those floors I found that they extended as black layers round the sides of the pits. On the top of the black layer, in many places, there rested a thickness of 50 feet of sand; in other places less. Ten feet, 4 feet, or perhaps only 2 feet would sometimes be found. I also soon discovered that the sides of the pits were constantly suffering from denudation, and that they were constantly becoming wider from the removal of material by the wind. In digging into the black layer I got flint objects, pottery, bones, and shells, similar to those that were found on the surface, all of which led me to the conclusion that the pits had been filled with sand until a very recent period; that the black layers represented the surface of the sand-hills at the time of the occupation of that place by the flint implement makers; and that the covering of sand was not heaped up suddenly, but by a slow and gradual process which was dependent on the rate of growth of the vegetation on those hills. The objects found in the pits had therefore dropped from the black layers. The hearth-stones represented dwelling-places, and the various remains would naturally be found in greatest abundance close to such spots. The stones and flakes would give protection to the sand below, whilst removal of the sand by the wind would go on freely on all sides, and cause the protected part to take on the form of a mound. Such is the interpretation I have given on several occasions of the nature and origin of the remains found so abundantly at Portstewart and elsewhere, and some excavations I have made during the past year confirm all I have previously said on the subject.

Of the various other places besides Portstewart, where similar remains have been found, Whitepark Bay, near Ballintoy, is one of the most important, but Castlerock, on the opposite side of the Bann from Portstewart, as also Portrush, Larne, and many other places on the north and east coast, in the counties of Derry, Antrim, and Down, have yielded considerable quantities. The sand-hills near Castlerock are only separated from those of Portstewart by the River Bann, and we may almost look on the two places as one. On the Castlerock side of the river, the same kind of pits and black layers are found as on the Portstewart side, and similar remains have been obtained from them; but it is strange that the flints, bones, and black layers, as far as I have been able to observe, are only found in those sand-hills which are removed about a mile and a-half from the mouth of the Bann. I believe that since the occupation of those hills by the flint implement makers, a portion of new land of the nature of a delta, from a mile and a-half to two miles in length, was formed at the mouth of the river, which has since become covered with sand-dunes, similar to those on the older portion. The sand-hills on the Castlerock side, about two miles from the mouth of the Bann, are still pretty rich in remains. In a recent excursion (June, 1879) of the Ballymena Naturalists' Field Club to that place, 200 manufactured flint objects were brought away by the excursionists. There are some pits of small size at Ballintoy, but the part which yielded the greatest supply of flints and bones is of the nature of a ridge or sand-bank close to the sea, and about 30 feet above sea-level. A floor or dark layer, from 3 to 12 inches thick, runs along the whole top, and there is only one small portion which has a covering of sand. The exposed portion has had its covering removed within a comparatively recent period. From Portstewart, Castlerock, and Ballintoy, the places where animal remains and implements are found buried up in the black layers, I think I may safely estimate the number of manufactured flint implements, obtained by myself and others, up to the present time, without taking any account of flakes or cores, at 2,000.

In examining the manufactured flint articles, scrapers are found to be by far the most numerous. They would amount to 60 or 70 per cent., and if some objects of irregular form, but used, I believe, for the same purpose as the scraper, were counted, the percentage would be much higher. The scrapers are of various forms and sizes, some being 3 or 4 inches long and others smaller than a finger nail. Some have been very carefully manufactured, the edge being of very regular outline, while a number have a less regular form with prominent teeth. Some have small tang-like handles with broad scraping edges, others have broad bases,

while the scraping edges are so small that they might almost be described as blunt points. Others again are chipped all over the back, showing as beautiful workmanship as the most finely finished arrow-head.

The scraper seems to have been the implement most required. It is found by farmers in the fields in considerable abundance, but is seldom lifted, as collectors do not want such poor objects, and nothing is bought unless it has elaborate workmanship like an arrow-head. I knew of one collector offering to sell scrapers at a few pence per quart, and I have known another to throw them out among the gravel of his walks. As far as my own experience goes from collecting them myself at Portstewart and Ballintoy, I look on them as most interesting objects. I believe they must have been in daily requisition, not only to scrape skins, but to take nutritive matter off the bones, marrow out of the inside of bones, bark from trees, and for many other purposes. And so we have them of different types—broad for scraping flat surfaces, hollow for scraping cylindrical surfaces like the outside of a bone or shaft of an arrow, while others have a narrow end for scraping such places as the hollows of bones.

I have made experiments with scrapers, and find them more effectual for scraping purposes than if the sharp undressed edge of a flake were used. Previous to the meeting of the British Association in Belfast, I procured the skin of a kid which had been cured by strewing on the fleshy side a mixture of powdered alum and salt, which was allowed to remain for about two or three weeks, when the skin was washed and hung up to dry. It was dried when I got it, but so stiff and crumpled that no garment could have been made from it. I then scraped the one half of the skin on the fleshy side for a considerable time, leaving the other portion in its natural state, and I found that the scraping had the effect of making it quite soft and pliable. The contrast between the scraped and unscraped portion was most striking.

I do not believe that scrapers were used for striking a light. They are too perfectly finished for that, and a certain design is apparent which would not be necessary in a strike-a-light. Besides, I do not believe that in a damp climate like the north of Ireland, where tinder, I should think, would be a scarce article, people would allow themselves to be dependent for fire on strike-a-lights. A fire might go out in one dwelling, but not likely in all, and it is more probable, I think, that a person who was so unfortunate as to allow his fire to go out, would apply to a neighbour for a light, than try the tedious operation of lighting it with two pieces of flint, or flint and iron pyrites.

Arrow-heads were found only at Portstewart and Castlerock. I stated in the paper which I read at Belfast, that the arrow-heads formed fully two per cent. of the whole flint objects I had then obtained. They still bear fully that proportion when we estimate what was obtained at Portstewart and Castlerock, but Ballintoy, which is so rich in other flint objects, has yielded no arrow-heads. The arrow-heads are of various types and finely finished, and it is probable that the number found gives no indication of the extent to which these implements were produced. Being used in the chase, they would be scattered abroad and lost, to be found afterwards at places far removed from the ancient dwelling-places. I have, however, been told by persons in the neighbourhood of Portstewart, that in cutting through a rock to make a piece of new road near the sand-hills, the road-maker came on a heap of arrow-heads lying in a hollow of the rock, which the person who described the circumstance to me estimated at a bushel, but I was not able to trace this discovery any further. The first arrow-head found, and which gave rise to my subsequent labours, was a variety of the leaf-shape with the point at the broad end, but others are kite-shaped, indented and barbed—the barbed being the most numerous. There is one of the kind referred to by Captain Cameron at the Glasgow meeting of the British Association, which he said resembled a type made of iron by the natives of Africa, for the purpose of rotating. The specimen I refer to is lanceolate and twisted. There are also several half-finished arrow-heads, and a kind of implement which I have always described as a knife, and still believe it to be such, but which is described by others as an arrow-head. There is generally a thick back, a sharp cutting edge, and a tang on such implements. My belief in their being knives, and not arrow-heads, arises from the point being in some instances either hooked or blunted.

There are many wedge-shaped pieces of flint with blunted faces and stout backs which were probably used in the manufacture of scrapers and arrow-heads. By pressing with such implements alternately on different sides of a flake at the same spot, I have been able to make an indenture similar to that between the barb and stem of an arrow-head.

The choppers or wedge-shaped pieces of flint, so large that the hand can grasp them firmly, are most numerous at Ballintoy, but I have found them also at Portstewart and Castlerock. I have also excavated some at Ballintoy of triangular outline, with thick base and cutting point, like the palæolithic implements from the river gravels. These chopper-like implements I believe to have been used in cutting wood for the fire and other operations requiring a stout implement. I will just

remark that, in looking over a number of palæolithic implements and trying them in the hand, I find they are so formed that you can strike with either edge as well as the point, and some are so constructed that the thick basal portion extends some distance round one of the angles of the base, and, strictly speaking, leaves only one cutting edge. Such palæolithic implements would appear to me to have been used in a similar manner to those choppers and probably for a like purpose. Several hatchets of the Danish kitchen midden types have also been found, and a gradual merging of both scraper and chopper into the hatchet type is frequently visible.

Cores are plentiful and some are very small. One could hardly believe that flakes struck from the smallest cores would be of the slightest use. The hammers which were used for striking the flakes from the cores are also very numerous and of various sizes. They are chiefly made from waterworn quartzite stones. The ends are always bruised and flattened by the process of hammering.

As regards the material from which flakes were struck I believe that the flint stones found on the sea-shore were chiefly used, but I have met with flakes of obsidian at Portstewart having bulbs of percussion, and I have lately got an arrow-head of that material. I found several lumps of porous lava of the nature of pumice which have been rounded by rolling on the sea-shore. This material and also the obsidian may be natural productions, as pitch-stone is found in several places in county Antrim, but I think it just as likely that the pumice, which I find floats on the water, may have floated from a distance having the obsidian attached to it, just as seeds from the West Indies and other objects are cast ashore at Portstewart at the present time. I have found no evidence as yet that mining has been resorted to for the purpose of obtaining flint, yet it seems improbable that such loose boulders of flint as could be picked up would yield sufficient material for the manufacture of all the flint implements that have been found in Ireland.

Of the stones known as oval tool stones, four have been found. The age of these objects is considered doubtful both by Sir John Lubbock and Dr. Evans. Those found by me were associated with flint scrapers and other objects such as I have described; but considering the amount of denudation that must have taken place before they could be left exposed on the surface, it is quite possible that the objects in the dark layers might get mingled with others of later date which had been deposited higher up, and so if there was any difficulty in believing that the tool stones were of the same age as the flint objects, it could easily be explained; but lately when excavating at Ballintoy, I found,

firmly imbedded in the dark layer and closely associated with scrapers, flakes and the usual broken and split bones, the half of one of those tool stones which had got broken. I therefore think we have sufficient evidence that the tool stones and flint implements are of the same age. The very fact, too, that such oval tool stones as are formed of quartzite have their ends bruised from hammering, like the hammer-stones found with the flints, would, I think, be additional evidence in favour of that view. But Dr. Evans, in his presidential address to this Society in January last says, that if the tool stones and scrapers were found to be contemporaneous, he should more readily accept the scrapers as belonging to the age of iron, than the tool stones as belonging to the age of stone. In deference to such weighty authority, I will admit that the scrapers and other flint implements found at Ballintoy may be of younger age than flint implements found elsewhere, but as far as I have seen not a trace of metal of any kind has been found, and there is no evidence to show that they are of the age of iron or even of the age of bronze. That the people were manufacturers of stone implements is sufficiently shown by their flint cores, flakes, hammer-stones, and scrapers. There is also no doubt that the scrapers and tool stones were contemporaneous, and although stones of the latter kind may have belonged to the early Iron Age in Denmark, I believe they belonged to the Stone Age in Ireland.

I have found other stones indented slightly on the sides as if they were tool stones in an early stage of manufacture, but I believe such stones to have been used as a rest or sort of anvil in the manufacture of arrow-heads and scrapers. If the flake to be operated on were laid flat on the stone and held down with the thumb, and the edge pressed by one of the wedge-shaped implements I have described, the latter would strike against the stone every time a flake was removed, and soon produce a depression. I have also got some bored stones, and I observe that similar depressions appear to have been produced before commencing to bore. The boring, I believe, has been produced by a rotating piece of wood and sharp sand. In one which I obtained from the dark-coloured layer at Ballintoy, there is an irregular ring-like marking inside the hole which would not be produced by a metal borer. The irregularities could be produced by the wobbling of the shaft of wood, and also by the end getting broader from wear, when a wide portion of the hole would be formed, but when the end of the drilling stick was dressed, it would make a narrow bore for a short time.

In examining a number of bored stones lately I have observed some very good examples of the kind of boring described, but

in the majority of instances, the finish that had afterwards been given to the holes obliterated these marks.

I have got bone implements both at Portstewart and Ballintoy. At the Belfast meeting of the British Association I exhibited an implement got at Portstewart with two prongs forming a kind of fork. It is about 8 inches long, and formed from the leg-bone of an ox or horse. It is similar in shape to a tool formed of wood, and sometimes partly of iron, which is used by persons for putting straw roofs on houses. Each tuft of straw is caught between the prongs and pushed well in so that it may not be carried away by the wind. This implement is called a "spurtle" in Ireland, and I imagine that the bone implement may also have been a "spurtle," and used in the thatching of huts. It would do equally well, however, for grubbing the soil or spearing fish. I procured at the same place several other manufactured bones, and others sawn, scraped, and cut.

At Ballintoy I obtained several bored and cut bones, bone-pins and needles. A short time ago I got from the black layer a bone-borer and a needle with a neatly formed eye. I also had the large end of the antler of a deer from a different part of the same layer having a hole bored through, wide at the surface of the bone on both sides, and narrow in the middle like the holes in many stone-hammers.

The pottery is similar in character and ornamentation to burial urns; it is found in fragments, and abundantly in the black layer, and is therefore of the same age as the scrapers. I believe from finding lumps of clay in the black layer suitable for pottery that it was manufactured on the spot and has been used for domestic purposes.

Small beads of serpentine have been found at Portstewart, but only in one spot; I believe they are of the same age as the flint implements, but as yet they have only been found on the surface. Small flat circular pebbles are frequently found, some of them formed of ornamental stone. There is no evidence that they have received any workmanship, but from finding a little cluster of about 20 in number while excavating at Portstewart, I think it is possible they may have been covered with soft skin and used as buttons.

The animal remains found on the surface associated with the flint objects have been examined by Professor A. Leeth Adams, F.R.S., and found to contain bones of man, ox, horse, hog, wolf or dog, fox and deer; and during the past year I have obtained remains of the same kind of animals from the dark-coloured layer mixed up with the scrapers and other implements.

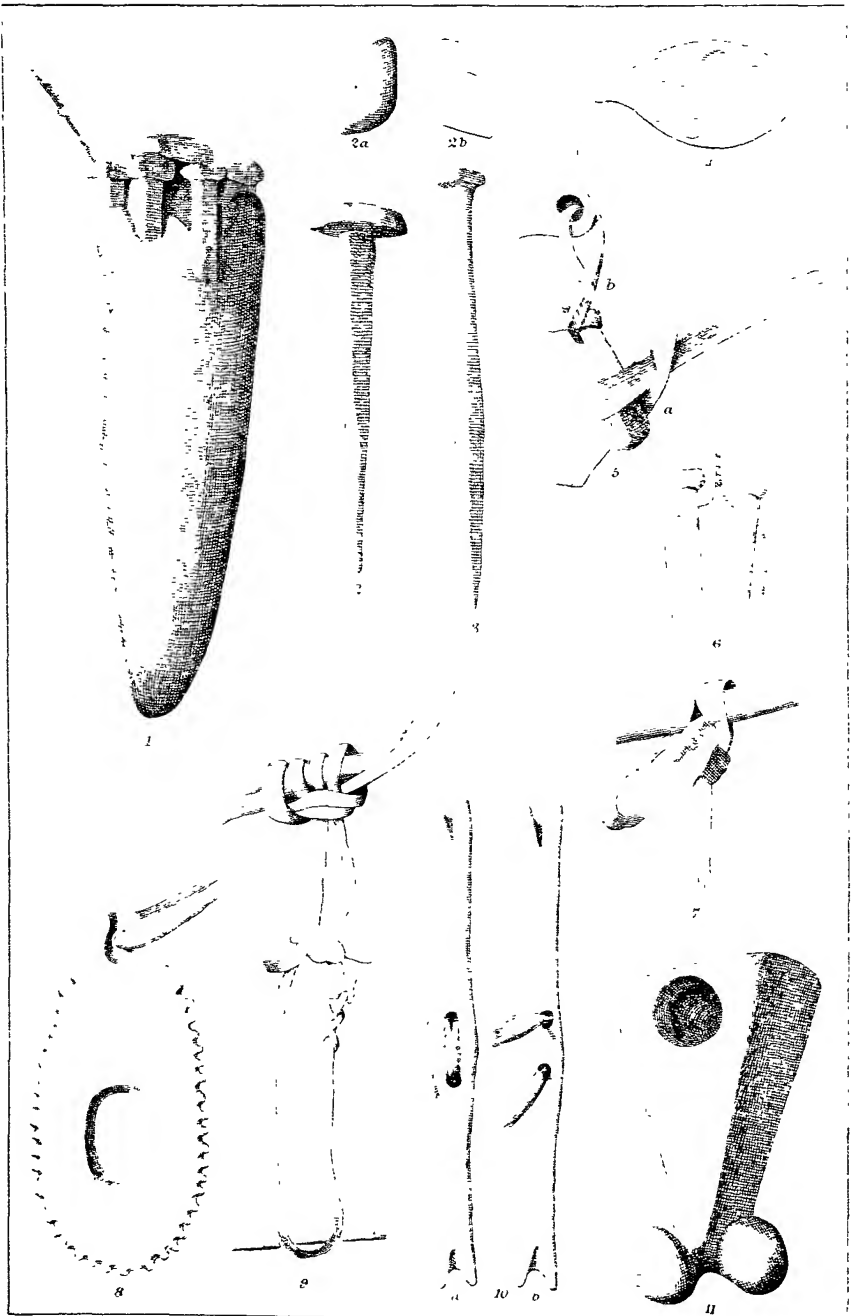
The shells are chiefly those of *Littorina* and *Patella*, but I have found *Ostrea*, *Mytilus*, *Cyprina* and *Pectunculus*. I have

frequently in digging met with little heaps of the *Patella*, about a bushel in quantity, but in many parts of the black layer the shells are very thinly scattered. I have found no shell-mounds like kitchen middens, but the black layer covers a considerable district. It is from 3 or 4 to 12 inches in thickness, and no remains are found either above or below it. There is, however, frequently more than one layer. It has been coloured by the burning of wood and bones and probably by absorbing refuse animal matter. Charcoal and burned bones are regularly met with in the layer. It is quite firm and resists denudation long after the covering of sand is removed.

All the flakes, scrapers, and other flint objects found on the surface have a beautiful porcellaneous glaze, while those excavated from the dark layer show a dull unglazed surface. The bones found on the surface are also more or less glazed and much firmer and tougher than those freshly excavated. I believe they regain firmness and strength to a certain extent when left exposed for a short time on the sand. The flakes found at Portstewart are as a general rule smaller and finer than those found at Ballintoy. At the latter place they are broad and flat, and a flake having a central ridge down the back is scarcely to be met with. In reading Dr. Evans's description of palæolithic flakes in "*Stone Implements and Ornaments of Great Britain*," it struck me very much to see how closely the description would have applied to those from Ballintoy. I do not on this account claim for the flakes and implements found there any extraordinary antiquity, but I believe, notwithstanding the oval tool-stones being found among them, we must refer them to the Stone Age.

DISCUSSION.

Colonel GODWIN-ACSTEN observed: Mr. Knowles has supposed that the workers of these flint implements did not use flint as a means of obtaining fire owing to the dampness of the climate. My experience goes to show that such is not the case in the dampest climate perhaps in the world, the Khasi Hills; there the people always use the flint and steel for obtaining a light, the tinder carried about the person being quite dry enough.

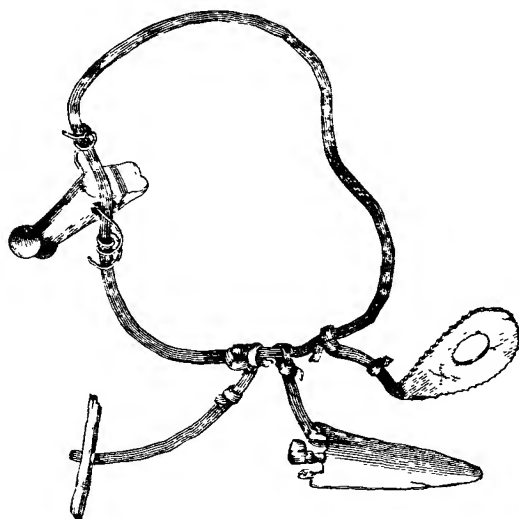


On some ESKIMOS' BONE IMPLEMENTS from the EAST COAST of GREENLAND. By W. J. SOLLAS, M.A., F.G.S., Assoc. Roy. Sch. Mines, London.*

ON finding amongst the numerous Eskimo implements which are preserved in the Bristol Museum a few which do not appear to have been previously described, it occurred to me that it might be worth while to publish a short account of them, more especially as every trifle relating to the Eskimos has become a matter of importance since the publication of Professor Boyd Dawkins' speculations on the probable blood relationship between these people and the palæolithic inhabitants of Europe.

The object at present under our notice is a leathern armlet (fig. 1) with some hunting or fishing implements suspended to it, which was presented to the Museum by Mr. Rowden, R.N., who brought it home in H.M.S. "Griper," from Clavering and Sabine's voyage. It came originally from the bay of Gale Hamke, on the East Coast of Greenland, where it was evidently both worn and used by its original owner, smears of dried blood still encrusting every part of it.

The leathern bracelet itself consists of a thin strip of pre-



pared skin, about one-seventh of an inch square, 15 inches long, and joined at the ends into a ring about a foot in circumference,

* Read June 24th, 1879.

so that it just fits over the outside of my coat-sleeve. The joining of the ends (Pl. VII, fig. 5 *a*) has been accomplished by making a longitudinal slit just about half an inch from the extremity of one end, the other end has then been drawn through this for about $2\frac{1}{2}$ inches of its length, and afterwards tied in an ordinary knot round the slit end at the commencement of the slit. The ring so formed shows two tag ends; one short and thick, remains free; the other, 2 inches long, thin and tapering, is utilised as a suspensor for an elliptical bone disc, one of the implements attached to the armband; for this purpose it is passed through an eyelet hole in the disc, bent upon itself into a loop, passed through a slit near its origin and tied about itself in a knot, thus repeating the method of tying by which the ends of the bracelet were joined together (Pl. VII, fig. 5 *b*). The mode of attachment of the other implements, which consist of a case full of bone pins, and two instruments of a somewhat problematical character, will be described in the account given of these implements below.

The Bone Pins (Pl. VII, figs. 2 and 3).—These are each carved out of a single piece of bone or ivory, and in general appearance closely resemble, as Parry has remarked, tenpenny nails. The shaft is straight, square, or oblong in section, 1.95 to 2.7 inches long, 0.15" broad near the head, and of the same thickness for the greater part of its length, but afterwards rapidly tapering to a sharp pyramidal point; the pointed end is usually cleanly cut, a pyramid, with four acute isosceles triangles for its sides, but in one instance (fig. 2) it is clumsily shaped so as to resemble the badly sharpened end of a lead pencil. In one of the pins (fig. 3) the shaft is cylindrical near the head, and afterwards triangular in section, with a three instead of a four-sided pyramidal point. The square flat head is set on well at right angles to the shaft, its upper edges are more or less rounded off (fig. 2 *a*), but the lower ones are sharp and rectangular (fig. 2 *b*). It varies from 0.25" to 0.5" in breadth and 0.075" to 0.2" in thickness. In one case the head projects on two opposite sides of the shaft only, being cut off flush with the other pair of sides, making the resemblance to a tenpenny nail very marked.

There are seven of these pins, and they are fitted into a leathern case (Pl. VII, fig. 1). Six longer ones forming an outer circle, in the middle of which is placed the seventh, shorter and with a considerably larger head than the rest, and so serving to keep the others from slipping out. The case is in the form of a blunt compressed cone, 2.75 inches long and 0.9 inches along the major axis of the elliptical upper end. Its construction is simple and ingenious. A piece of dressed skin, cut in the form of a segment of a circle, has been folded into a cone, and the lateral opposed edges sewn, herring-bone fashion, together; the

upper edges have likewise been brought together and sewn through, so producing a completely closed conical bag. The upper surface has then been perforated on each side of its mesial seam, with an opening for each of the pins (Pl. VII, figs. 4 and 6). Finally, the bag seems to have been allowed to dry and so to have acquired the stiffness it now possesses. In cutting the skin into the proper form for the case, a long strip was left prolonging the upper end of one of the lateral edges; this strip has been folded double for half an inch past its origin and sewn together, to diminish its breadth and increase its thickness; for the rest of its length it is single, narrow, and thin. Where it begins to be of single thickness it is looped round the leathern armlet, and tied by first passing the free end through a slit in itself, and then knotting it; it is thus secured to the armlet (Pl. VII, fig. 7) in the same way as the ends of the latter are joined together.

The occurrence of the bone pins on a strap which is evidently part of a hunter's or fisherman's equipment, and their blood-smearred appearance make it improbable that they were used as fasteners for the dress, though had they been found dispersed in the middle of a cave breccia, this is the use which would most probably have been attributed to them. They are not pins in the domestic sense of the word; indeed, I have not been able to find in accounts of the Eskimos any mention of dress-fasteners having the form of pins. These people make a good use of the needle and thread, and well understand the use of buttons, but pins they do not appear to regard as an article of the toilet, for which indeed in the case of skin-garments they would be ill suited. Their use, I think, will be gathered from the following passage, which occurs in Parry's Account of his Second Voyage, p. 510:—"As the blood of the animals which they kill is all used as food of the most luxurious kind, they are careful to avoid losing any portion of it; for this purpose they carry with them a little instrument of ivory, called *toō-pōo-tā*, in form and size exactly resembling a twenty-penny nail (fig. 25) with which they stop up the orifice made by the spear, by thrusting it through the skin by the sides of the wound, and securing it with a twist."

The figure which accompanies this account is almost exactly similar to those figured on Pl. VII, only differing by the presence of a perforation through the shaft just below the head, for the passage of a string, by which it is attached to the hunting bracelet; as our pins are carried in a quiver, this perforation is obviously not needed by them. The idea of carrying a number of pins together in a case appears to be a distinct advance on that of perforating each one, and suspending it separately. It is interesting, however, to find that both kinds of

pins, perforated and not perforated, are in use amongst the Eskimos.

Parry's statement as to the use of these pins is confirmed by a similar passage in Lyon's narrative, and by the following from Crantz:—"When they have caught a seal, they stop the wound up directly, that the blood may be kept in till it can afterwards be rolled up in balls, like forcemeat, to make soup of," and again: "Then he runs the little lance into it, and kills it outright, but stops up the wound directly to preserve the blood."* This then is the use to which our bone pins were put—they are little skewers or *toō-pōo-tās*: and thus another possible use besides that of dress-fasteners and awls is suggested for the bone pins which have been found associated with palæolithic implements in this and other countries. The bone pin, for instance, found in Kent's hole, 4 feet down in the cave earth below the stalagmite of the vestibule, may possibly be a *toō-pōo-tā*, though it is rather a large one for the kind, attaining a length of $3\frac{1}{2}$ inches; it is also circular instead of square in section, with a screw-like head, and is altogether of more clumsy make than our forms. It is said to be highly polished as if by constant wear, though for the matter of that so too are some of our *toō-pōo-tās*; how far the differences between the recent and the fossil pins are related to differences in function is a difficult question to decide, and the latter may after all have been used for dress-fasteners, as Dr. Evans suggests; there is, indeed, a fourth kind of use to which they may have been put, viz.: as nails. Thus Crantz, in writing of the construction of an *umiak* or "woman's boot," says:—"The beams, posts, and benches are not fastened with iron nails, which might easily rust and fret holes in the skin, but with wooden pins and whalebone bands." He does not mention bone pins here, it is true, but in a country where bone is so frequently substituted for wood, it is very likely that the wooden pins alluded to may sometimes be replaced by bone ones. That bone nails are used in some cases is shown by the following sentence: "The walls" *i.e.*, of the summer residence, "are hung inside with old worn tents and boot skins, fastened with nails made of the ribs of seals." Unfortunately these nails are nowhere further described. While quoting from Crantz, one may add the following passage:—"† All the tools he uses for this" (*i.e.*, the construction of an *umiak*) "and all other work are a little lock-saw, a chisel, which when fastened on a wooden haft serves him for a hatchet, a little gimlet, and a sharp-pointed pocket knife." From this it would appear that we may add a third instance to the

* "The History of Greenland." By David Crantz, i. 143. (1767.)

† Crantz, p. 149.

‡ Crantz, p. 139.

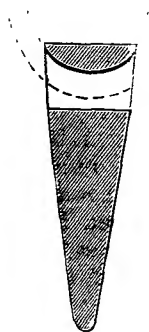
two mentioned by Dr. Evans,* in which a celt may serve either as an axe or as a chisel. To return after this short digression to our bone pins. Another pin from palæolithic caves which appears to be referable to the "toō-pōo-tā" is that figured by M. Lartet (*"Ann. des Sci. Nat.,"* 4 ser. vol. xvi. Pl. II, fig. 2). It is of the same size as our pins, and though it is clumsier in form, that is quite in keeping with the character of most of the palæolithic implements when compared with those of the modern Eskimos.

The resemblance of the bone implements of Scandinavia to those of the Eskimos is a very remarkable thing when we consider that the former are referred to the neolithic age; and taken in conjunction with the occurrence of many other antiquities of an Eskimo character in Scandinavia, might lead us to infer that some of the people of that country during neolithic times were quite as much Eskimos as the palæolithic people of other parts of Europe; at any rate, it makes it quite possible that the perforated bone pins figured by Nilsson (figs. 263-265, Pl. XVI) may have been used in the same way as the perforated toō-pōo-tās described by Parry, though there is a difference in form, the Swedish pins being cylindrical with circular heads; their points too, are very blunt, even to the extent of being quite rounded off. It is impossible to say, however, whether the bone pins found in Barrows in this country were used for toō-pōo-tā purposes—the one from Green Lowe Barrow, 4 inches long (figured in the *"Crania Britannica,"* vol. ii. Pl. XLI), is certainly very like a toō-pōo-tā; that from Monsal Dale, 6 inches long, and with a perforated head, much less so.

The next instrument which calls for attention is a heavy and massive piece of workmanship (Pl. VII, fig. 11). It is a solid pyramidal piece of bone or ivory, 1.75" high, with a rectangular base 1" long by 0.6" broad, the basal edges are sharp, the lateral edges rounded off. The blunt apex of the pyramid gives off two lateral processes or nearly spherical protuberances, one from the end of each of its narrow sides; their distance apart is just 0.9 of an inch. The broad or basal end of the bone is completely perforated by a wide cylindrical canal, 0.35" in diameter. The general form of the implement reminds one of a massive old-fashioned seal. It might very possibly have been used as a sinker for a fishing line, which would accord well with the fact that unlike the other implements it is not securely knotted on to the leather armlet, as if never intended to be taken off, but merely fastened loosely by a thin thread of whalebone, which passes through the wide basal perforation and is loosely knotted at

* Evans's *"Ancient Stone Implements,"* p. 153.

each end on to the armlet. It was thus readily removable, while the other tools could only be untied from the armlet by the exercise of much patience and ingenuity. If suspended by a cord passed through the hole in it, the pyramid hangs apex downwards, and is then in the right position for use with a fishing line attached to its narrow end. Nothing could be easier than putting on such a line by running a slip-knot over the projecting knobs, unless it were the taking it off again, and on adapting a slip-knot to it myself I find that the string, of necessity, lies exactly in the grooves which have been cut around the projecting knobs, as if on purpose to receive it. As regards the perforation in the bone it is noticeable that its edges towards the apical end have been left sharp, as when the hole was bored, while the opposite edges, which would otherwise fret a line passing over them, have been well rounded off, as is shown by the following vertical section.



The dotted line shows the position the inserted cord would take. I do not know whether any similar implements have been found in the fossil state; one would expect to meet with them if they were at all used by any of the extinct races of Europe, for they are too massive to easily decay, and too large to be easily passed over by a careful collector.

If the foregoing instrument was used for sinking and suspending fish-hooks, the next (Pl. VII, fig. 10) appears to have been intended for carrying them about. It is a narrow bar of bone, 2.55" long and 0.1" thick, a little broader in the middle, where it measures 0.15" across, and at the ends, than between these parts. It is notched at each end as shown in the sketch, and the notches are prolonged into short shallow grooves. In the slightly broader middle part are two small holes, symmetrically placed in the middle line and 0.35" apart. They serve for the passage of a thin leather string which suspends the bar, and is secured to the leather armlet by knots of a most puzzling kind.

The string passing through the ivory bar is thin and narrow, but it widens towards the end, and is spliced at the other on to a broader thong. The splicing is characteristic, the two ends to be joined are each slit longitudinally for about half an inch, one end is then passed through the slit in the other, the sides of this slit are now crossed over and the first end is passed through the slit again, under the crossing, the sides of the slit are again crossed and the end is once more passed through it, this time over the crossing. The end which has then been threaded through the other now goes through the reverse process, one of the distant free ends being threaded through it; the interlaced splice thus produced is very strong, and pulling upon it only makes it the firmer. The two remaining free ends are next joined together, so that the thong becomes a ring; the junction is accomplished, partly by interpenetration, and partly by an ordinary knot; and the sides of the ring having been doubled together, a slit in one of its joined ends serves to brace together its opposite sides and so to convert the ring into a mere double thread. It now only remains to attach this double thong to the leather armlet, and the knot by which this is accomplished will be best understood from the figure (Pl. VII. fig. 9); one looped end is folded over the armlet, the other is then first drawn through the loop, next passed under the armlet, then brought back over it in an opposite direction to the first fold, and finally drawn under the band which it formed on passing out of the looped end to encircle the armlet. This is the last of the knots that we have to describe, and we now pass to a consideration of the fourth and last implement of the armlet. This is the perforated disc (Pl. VII, fig. 8), the mode of attachment of which to one end of the armlet thong has already been described. It is oval in outline, flat on one side, very faintly convex on the other, 1.35" long by 1" broad, regularly notched at the edges for the sake of ornament, and perforated by two holes, one nearly central, more or less elliptical in outline, 0.45" long, by 0.35" broad, the other much smaller, situated in the slightly produced proximal end of the disc, and serving for the passage of the leather string by which the disc is suspended to the bracelet. This smaller perforation is grooved at its proximal end to prevent its wearing away the leather string. The instrument appears to be comparatively new, exhibiting few signs of prolonged wear; one of the teeth between two notches is broken out, the surface is smeared with dried blood, which also clogs up the notches, and the distal edges of the central hole are well polished as if by continued friction. The latter fact would seem to point to the use of the disc as a simple kind of pulley-block, and it might very well have been used to change the direction of the motion of a cord

or to moderate its velocity, and so to save the hands of the fisherman when playing a rather heavy fish.

Description of the Plate.

- Fig. 1.—Quiver with its contained bone pins.
 2.—Ivory pin, *a*, upper surface of its head; *b*, lower surface.
 This pin occupies the centre of the group in the quiver.
 3.—Another form of tōo-pōo-tă.
 4.—Plan of upper surface of quiver, showing a hole for each pin, and the upper seam in the leather.
 5.—*a*, knot joining the ends of the armlet together; *b*, knot at one end of the armlet leather, serving to attach the perforated disc (fig. 8).
 6.—Vertical section of the top of the quiver, showing upper ridge of leather (the seam of fig. 4) and holes for the passage of the pins.
 7.—Knot by which quiver is fastened to armlet.
 8.—Perforated ivory disc.
 9.—Mode of attachment of the ivory bar shown in fig. 10.
 10.—Ivory bar with notched ends, *a*, outer surface ("outer," with respect to armlet); *b*, inner surface.
 11.—Ivory pyramid or fish-hook sinker.

(*All natural size.*)

NOVEMBER 25TH, 1879.

HYDE CLARKE, Esq., *Vice-President, in the Chair.*

The minutes of the last meeting were read and confirmed.

The following presents were reported, and the thanks of the meeting were voted to the respective donors:—

FOR THE LIBRARY.

From the AUTHOR.—A Guide to Modelling in Clay and Wax. By Morton Edwards, Esq.

From the EDITOR.—The American Antiquarian. Vol. II, No. 1.

From the INSTITUTION.—Journal of the Royal Institution of Cornwall, No. 21.

From the EDITOR.—“Nature,” Nos. 524 and 525.

From the EDITOR.—Journal of the Society of Arts, Nos. 1408-9.

From the COUNCIL.—27th Annual Report of the Council of the City of Manchester on the working of Public Free Libraries.

From the SOCIETY.—Journal of the Royal Geological Society of Ireland. Vol. XV, Part 2.

From the EDITOR.—*Revue Scientifique*, No. 20.

From the EDITOR.—*Matériaux pour l'histoire de l'homme*, Tom. X, 7^e liv.

From Colonel HENRY CLINTON.—International Pronunciation Table on Card. Tableau Synoptique de Prononciation Internationale. On Spelling Reform. By A. V. W. Bickers.

From the SOCIETY.—Proceedings of the Philosophical Society of Glasgow. Vol. XI, Part 2.

The Rev. DUNBAR HEATH exhibited some squeezes of “Hamath Inscriptions.” An illustrated description of these will appear in the next number.

A. L. LEWIS, Esq., read a paper on “Ancient Arithmetical Progress, exemplified by Roman Numerals.”

M. DE LA COMPERIE exhibited specimens of Mosso (Chinese) writing.

In the absence of the Author, the Director read the following paper.

The TURCOMANS between the CASPIAN and MERV.

By ARMINIUS VAMBÉRY, Professor Oriental Languages, University, Buda-Pesth.

WHILST men are every year becoming better acquainted with the orographic and hydrographic conditions of many hitherto entirely sealed portions of Central Asia, our knowledge of the inhabitants, of their languages, history, manners, and customs is still very deficient.

This remark especially applies to that fraction of the Turkish race known under the name of *Turcoman*, a word the etymological meaning of which has been so variously explained; but which nevertheless has the simple *signification* of the Turks *par excellence*. This people deservedly bears the title because, of all the multifarious divisions of the far-spread Turkish race, there are few that can bear comparison with them in purity of race

and language. I allude to the *Turcoman* tribes who have inhabited, from time immemorial, the western portion of the great Turanian desert. Notwithstanding that they are split up into several subdivisions, and that fierce enmity rages amongst themselves, they have never lost the purity of their race, like the *Kirghises*, *Karakalpaks*, and *Uzbeks* upon whom the great wars, and particularly the irruption of the *Mongols*, has wrought a wonderful change in blood, as well as in manners.

Whilst the *Uzbeks*, originally a political and not an ethnical name, chiefly consist of *Turks*, *Kirghises*, *Mongols*, and *Tartars*, who partly came from the Golden Horde, and partly had been long previously settled in the Khanates of Central Asia, the *Turcomans* are known as having remained comparatively pure and free from intermixture. Even those who took part in the wars of Timour and Nadir have generally returned to their clans in the desert.

It is owing to this circumstance that the physical features of the *Turcomans*, in spite of intermarriages with Persian female slaves, which are, however, not so frequent as is generally supposed, have retained a purer type of the genuine Turkish race than the rest of their brethren.

As a general rule the *Turcomans* are of middle height, like the *Kirghises*, and unlike *Uzbeks*, *Karakalpaks*, and *Osmanlis*, among whom tall men are of frequent occurrence. The forehead is less broad and flat, and the eyes less almond-shaped than is the case with those *Turks* who live in the north-east of Central Asia, and form the transition from the Mongol race to the Turkish. There is, however, with regard to the typical expression, considerable variation amongst the *Turcomans* themselves.

The *Goklans*, a fraction of the *Yomuts*, and the *Eresoris* may be taken as the most degenerate, whilst the *Tekkes*, and particularly the *Tchadurs* and *Imrardis*, bear the purest type of their nationality.

With regard to their early history, we find the *Salars* or *Saroks* first mentioned by the historians of the Arab invasion. This is a tribe now living to the south-east of Merv. Somewhat later the *Guz* or *Gozz* are mentioned as living in the environs of the present *Andkhoi*, where they caused much trouble to the *Samenides*, and became so powerful as to capture the Selajukian Prince Sanjar, whom they kept in prison for several years. Disregarding the erroneous transcription of Turkish words by Arab and Persian chroniclers, who from Tabari down to the latest writer have deformed almost every Turkish name, I cannot agree with those who discover in the aforesaid *Guz* or *Gozz*, the old Turkish mythical name of *Oghuz*. Such an absorption is contrary to the spirit of the Turkish languages. Only admitting

Guz to be the designation of clan, we may look upon it as the most eastern outpost of their nation, whose ancient home was that portion of the desert which stretches from the south-western shore of the Aral, along the east coast of the Caspian, down to the Górgen and Atrek.

Viewed in the light of comparative philology, the *Turcomans* stand nearest to the *Seljukians* of olden times, and consequently to the *Osmanlis* of to-day. This affinity is very striking, both as regards the grammar and the vocabulary. I will quote an example. The Ottoman writers of the twelfth, thirteenth, and fourteenth centuries used a dialect similar to the writings of Makhdumkuli, a Turcoman poet of the last century. An Anatolian peasant can converse with greater ease with a *Yomut* or *Goklan Turcoman* than with an *Azarbaijani Turk*, who is his near neighbour. Even common traditions affirm this relationship, for during my travels as an incognito Osmanli in the Turcoman steppe, the saying—" *Bir kardashimiz Ruma kitmish dir*"—"A brother of ours has gone to the west"—was constantly repeated to me. The philological argument, together with the scanty historical data, admit of the supposition that the *Seljukian Turks* who overthrew the *Samanides*, and who, after conquering Persia and Syria, founded the first Turkish principalities in Asia Minor, were in all probability a brother tribe to the *Turcomans* who remained in their ancient seat, only gradually encroaching partly in a south-eastern, partly in a south-western and southern direction into the country which they occupy to-day.

Thus we learn from historical records that the *Yomuts* already inhabited the banks of Górgen and Atrek in the fifteenth century, while a large fraction of them still remains in the south-western part of the Khanat of Khiva. The *Adaks*, *Tchaudars*, and *Imrailis* still occupy their old home between the Caspian Sea and Urgenj, as do the *Okuz* and *Khidr*, who are mentioned by Abulgazi, and by the historiographer of Shailbani. The *Ersaris*, quoted by the former as inhabitants of Khiva, are found to-day between Kerki and Charjui on the left bank of the Oxus.

The general characteristic of these nomads is their intense love for a wandering life, in which they surpass all their brethren of the steppes. While political revolutions and the influence of Buddhistic and Islamite culture have produced a change in the mode of living among the *Kazaks*, *Kara-Kirghis*, *Kipchaks*, and other Turkish tribes, we are unable to discover a like change among the *Turcomans*, excepting, perhaps in the isolated cases of the *Ersaris* on the left bank of the Oxus, and of a few *Yomut* clans to the south of Khiva.

As signs of this strictly conservative spirit among the *Turco-*

mans may be mentioned their laxity in the observations of the tenets of Mohammedanism, for although their conversion dates back as far as that of the settled inhabitants of the Khanates, religion has made but very little progress in the interior of the desert. The more we learn of their manners, customs, and daily life, the more are we astonished to discover so many remnants of the Shaman faith. There we find the adoration of the much dreaded spirits called *Oi-karasi*, the wailing ceremonies, and the sacrifices offered to souls of the departed.

At first sight, and to those unacquainted with their language and manners, the *Turcoman* will seem decidedly more savage than his nomadic brethren in the north and in the north-east. But this is a mistake, for under the rough exterior there are hidden many of the fine qualities of unsophisticated primitive life of the Turkish race.

A couplet or verse from the poems of the national bard, Makhdunkuli, or a favourite melody, can change the wildest fury into mildness, and the appeal "*Balang bashi uchun!*" ("For the head of thy child!") has saved more than one Persian prisoner from cruelty and death. Greediness for booty and ferocity are certainly not of rare occurrence, but considering that these tribes have led a camp-life for several centuries, we may easily find an explanation for these traits of character.

Our information respecting the past history of the *Turcomans* is vague and uncertain, but still thicker is the cloud which hinders us from obtaining anything like accurate statistical data respecting their total number. From Galkin down to Captain Napier this question has been frequently touched upon. In default of better information, I still adhere to the numbers given in my "*Travels in Central Asia*," which are adopted by Venyukoff and Rittich. Though I cannot vouch for the round number of one million of souls, I believe that later statistical information may *increase*, but will not diminish that number. Single tribes were formerly more numerous and powerful than they are now.

The *Salor* and *Sariks* must have been at the time of the Arab conquest much more numerous than at present. The same may be said of the *Karas* and *Alielis*, who enlisted in great numbers in the army of Chengiz. But at the present time the *Tekkes*, of whom there is, excepting Abulgayi's account, scarcely any mention in history, are the most numerous. Next to them come the combined *Yomuts* of Khiva and on the Górgen.

It may be assumed, as a general rule, that those *Turcomans* who by their position in the south-east part of the Hyrcanian desert come most in contact with the political movement on the highway from Turan to Iran, were the first to lose their

numerical strength. This was, in ancient times, the case with the *Salors*, *Sariks*, *Karas*, and *Okuz*, and this will also happen to the *Tekkes* who, unmolested hitherto under the shelter of Persian anarchy, will now have to undergo the hard trial of Russian supremacy, and will probably lose in the contest one fourth if not one third of their number.

In spite of their comparatively small numbers, the *Turcomans* have hitherto enjoyed the reputation of being fierce soldiers and dauntless adventurers. These qualities are partly to be attributed to the barren character of the steppes, and partly to the political condition of the neighbouring countries, which forced them into continual warfare to preserve their independence, which all nomads love, and for which the *Turcoman* is ever ready to sacrifice his life.

The sterility and nakedness of the Turcoman steppe are proverbial. We can hardly find any part of Central Asia which is more terrible, more void of the means of existence than the Kara-kum (black sand) desert, extending to Charjui, or than the Ust-yurt (upper home) stretching from the Kinderly Bay to Igdi. The Khalata sands on the right bank of the Oxus, the Batkak and Kizil-kum (swampy and red sands) are certainly not inferior as regards dreariness and horror. But they serve only as temporary places of abode to the *Kazaks*, whilst the *Turcomans*, constantly harassed by their neighbours, were more than once compelled to seek a refuge amidst a region cursed by nature, under a scorching sun, without a drop of drinkable water, and without a blade of grass for their cattle.

It may be said that the banks of the Gorgen and Atrek, of the Chandir and Sumbar,* as well as of the Murgab and Tejen, are suitable for agriculture, and had nevertheless failed to attract the *Turcomans* to a peaceful life. In reply to such a remark, we would allude to the *Yomuts* in the south of Khiva, who, being less molested by inexorable tax-gatherers, have really adopted for some time past a half settled life. They till the soil, and bestow great care on their irrigation canals. They would become much more peaceful if the Khans of Khiva, moved by their empty exchequer, did not continually impose exactions on them. Similar and weightier reasons have compelled the *Yomuts*, the *Goklans*, and the *Tekkes* to rise in continual rebellion against the rulers of Tehran who, in their impotence to subdue these hardy nomads, have made devastating inroads which the haughty Persians are pleased to call "wars." These are repaid by Turcoman marauding parties, frequently in a more cruel and inhuman way.

* Sumbar is a contraction of Su-ambar i.e. "water reservoir."

I allude to the foraging and plundering parties, called *Alaman*, when men, women, and children are robbed and kidnapped, and whole districts of northern and eastern Khorasan are sometimes laid waste. This horrible and most detestable traffic in human flesh, of which I was an unhappy witness for months and months, makes me shudder even now, and will certainly not prompt me to exculpate the *Turcoman* robbers, as recent travellers have attempted to do, moved by political motives.

No! the *Turcomans*, who delight in the *Alamans*, are a most frightful set of men, and quite unworthy of our sympathy. But justice compels me to remark that the Persians would be less charitable and less humane if our European Legations in Tehran remained as indifferent spectators, and enabled the towns of Iran to offer such slave markets as Central Asian towns are, even now, in spite of the much vaunted Russian philanthropy.

Nomads of all times and all regions have been a plague to peaceable settlers in their vicinity; and this greediness, originating from the poverty of their own land, can only be restrained by power and good will: qualities in which the Central Asian and Iranian kings are sadly wanting.

But the moral and social conditions of men are always in strict conformity with natural and political exigencies. If, therefore, the *Kazaks*, who were man-stealers and robbers during the last century, now permit small caravans to pass unmolested over their deserts, and even single *tarantas*, I do not see why the *Turcomans* should not also be brought to a peaceful life. But their neighbours, and particularly Persia, must meet them honestly, and not with continual attacks upon their property and independence.

We must never forget that the *Turcoman* nomads, with all their reputation as cruel and ruthless plunderers, have many fine qualities in which they excel the neighbouring nomadic tribes, and especially the *Kazaks*, with whom they are frequently compared. Whilst the mental quickness of the latter commonly degenerates into cunning and fraud, the *Turcomans* are known, even among their enemies, for their truthfulness and the rigid observance of a plighted word—a virtue which is used to the disadvantage of the nomads by the deceitful Persians.

What struck me most during my sojourn among the *Turcomans* was their love and tenderness for their family and the respect they show to females. I found that women were not only quite on an equality with men as regards family rights, but that old matrons inherit the command over the clan, and enjoy the obedience of the rudest warriors. Their love of hospitality deserves equal praise. Their courage, and particu-

larly their ineradicable love of independence, will be a hard trial for the future conqueror. These qualities will tax the strength of Russia in subduing the roaming inhabitants of the Hyrcanian desert, in a manner which the northern Colossus has not experienced hitherto.

Apart from the great difficulties of the roads leading from the Caspian to Merv, of which Sir Henry Rawlinson has given us a good description in his learned paper—"The Road to Merv"—in the March number of the "Proceedings of the Royal Geographical Society," I would hazard the opinion that the *Turcomans* will not be so easy to deal with as the *Kazaks* and *Karakalpaks*, although even these required more than one century to be brought under the present rule, and were only amenable to Russian supremacy after prolonged and gradual advances into the desert, the erection of detached forts, and the free use of bribery.

The Russians had a tolerably good example of the power of resistance and the staunchness of the *Turcomans* in 1873, during their campaign against the *Yomuts*; and it must be borne in mind that these *Yomuts* are but semi-nomads, and not half as courageous and warlike as their brethren in the south. The *Tekkes*, whose country is the present goal of Russian desire, are not only the most numerous, but also the most valiant of all the *Turcomans*.

Putting, therefore, all political controversies aside, we may assume that the ultimate result of a costly and fatiguing march across the desert from the Atrek to Merv will not compensate the Russians for their losses and sacrifices. The *Tekkes*, knowing the fate that awaits them, will resist to the last. Driven from one point, they will emerge at another, harassing the invading enemy with all the means at their disposal.

Unless Russia has made up her mind to wage a war of extermination against the well-mounted horsemen who are the actual possessors of Merv, the expenses of the present and of any future campaign will be entirely thrown away.

Under such circumstances, the idea suggests itself whether it would not be better for both parties to make choice rather of a peaceful solution. The friendship and goodwill of the nomads might be secured by an agreement which would guarantee their independence of the powerful neighbour in the east and north, and secure them from the encroachments of the Persians. It is certainly a mistake to believe that the *Tekkes* or the *Yomuts* have no other means of subsistence than robbery and man-stealing. We must remark that this detestable occupation, though it suits the adventurous and rapacious character of the horsemen of the steppes, is far from being a common practice,

and its cessation will by no means make the continuous existence of the nomads in their native deserts impossible. The testimony of history supports our argument. If the *Turcomans* have been kept from inroads across the Persian frontier so often even in the present century, by the firm hands of a few capable governors of Khorasan, and if these inroads were of rare occurrence in several periods of history, they cannot be held to be necessary for the existence of the *Turcomans* at the present day.

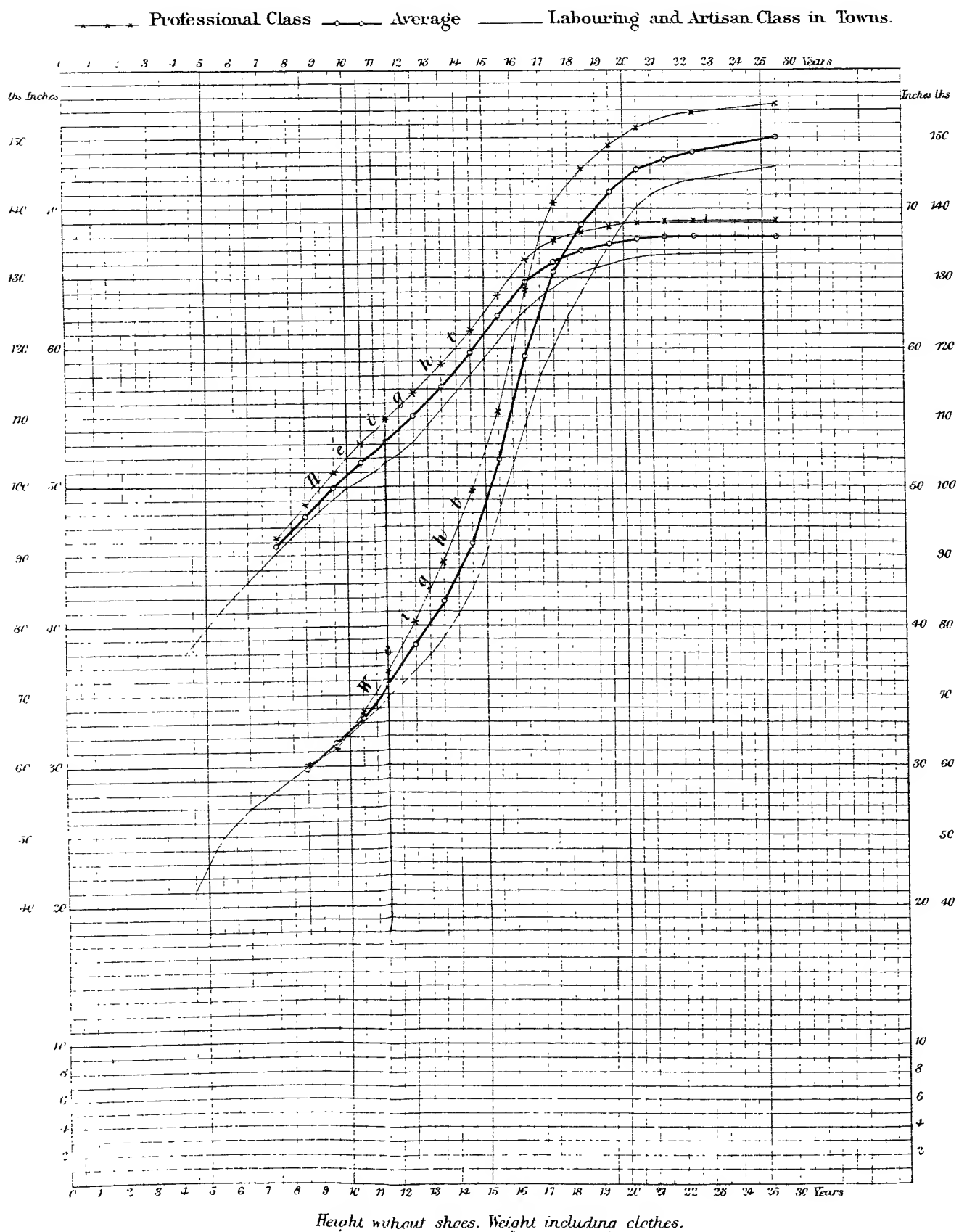
Let the more civilised Powers try justice and humanity instead of conquests and wars of extermination, and the nomads will become more tractable and less apprehensive for their independence.

DISCUSSION.

Mr. KEANE said that the description given in the paper of the physical features of the *Turcomans* raised, without solving, a very important question. Professor Vambéry evidently regarded the Mongolian type as different from the Turks; yet both belonged undoubtedly to the same great Finno-Tataric linguistic family. It was not pretended that one race had borrowed its speech from the other, and there had certainly been no change of that sort within the historic period. Both had from time immemorial spoken the same or nearly allied tongues; yet they presented ethnically distinct types. Here therefore we seemed to have a very remarkable instance of the persistence of language with a profound modification of the physical characteristics. For if both started originally with one common mother tongue, it was obvious that they must have also originally belonged to one ethnical stock, and have subsequently become differentiated, while retaining the common speech. This was at variance with the generally accepted doctrine that physical traits were more persistent than language. He had not seen any theory offering an explanation of the difficulty, and regretted that the learned author was not present to throw some light on the subject.

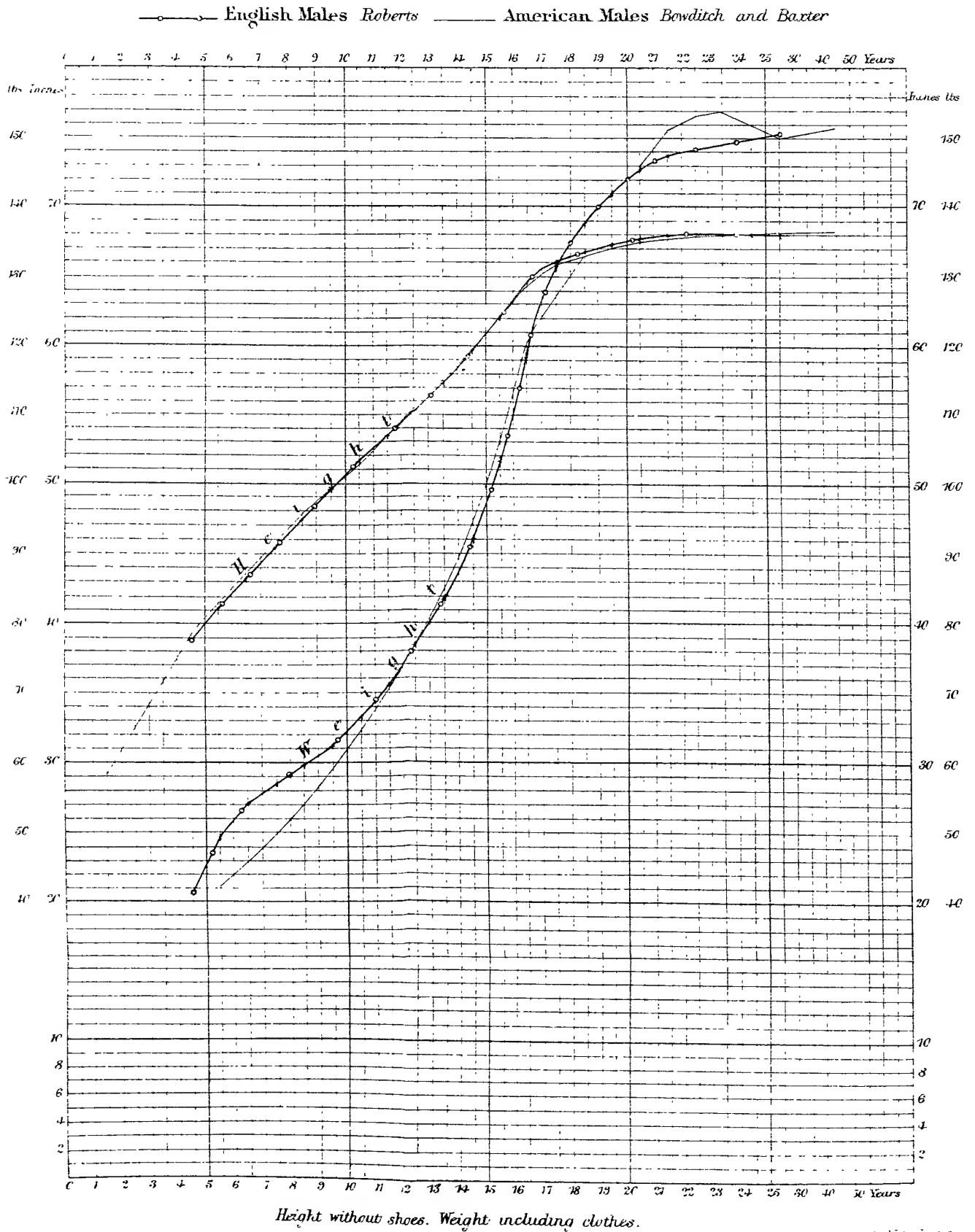
Mr. HYDE CLARKE remarked that the paper was written before the defeat of the Russians by the Tekke *Turcomans*, and was therefore prophetic as well as exact. Those in the room conversant with the population would be disposed to support Professor Vambéry's proposition as to the connection between the Seljuks of Asia Minor and the Osmanli. It was curious to note the resemblance to the Professor's description of the Yuruks and so-called *Turcomans* of Asia Minor who were commonly termed Kizillash by the orthodox. They were credited with the same superstitions. So far as he had observed, the women exercised much influence, and possessed great independence, although nominally subservient to the men.

I. DIAGRAM SHOWING THE HEIGHT AND WEIGHT OF THE ENGLISH POPULATION.



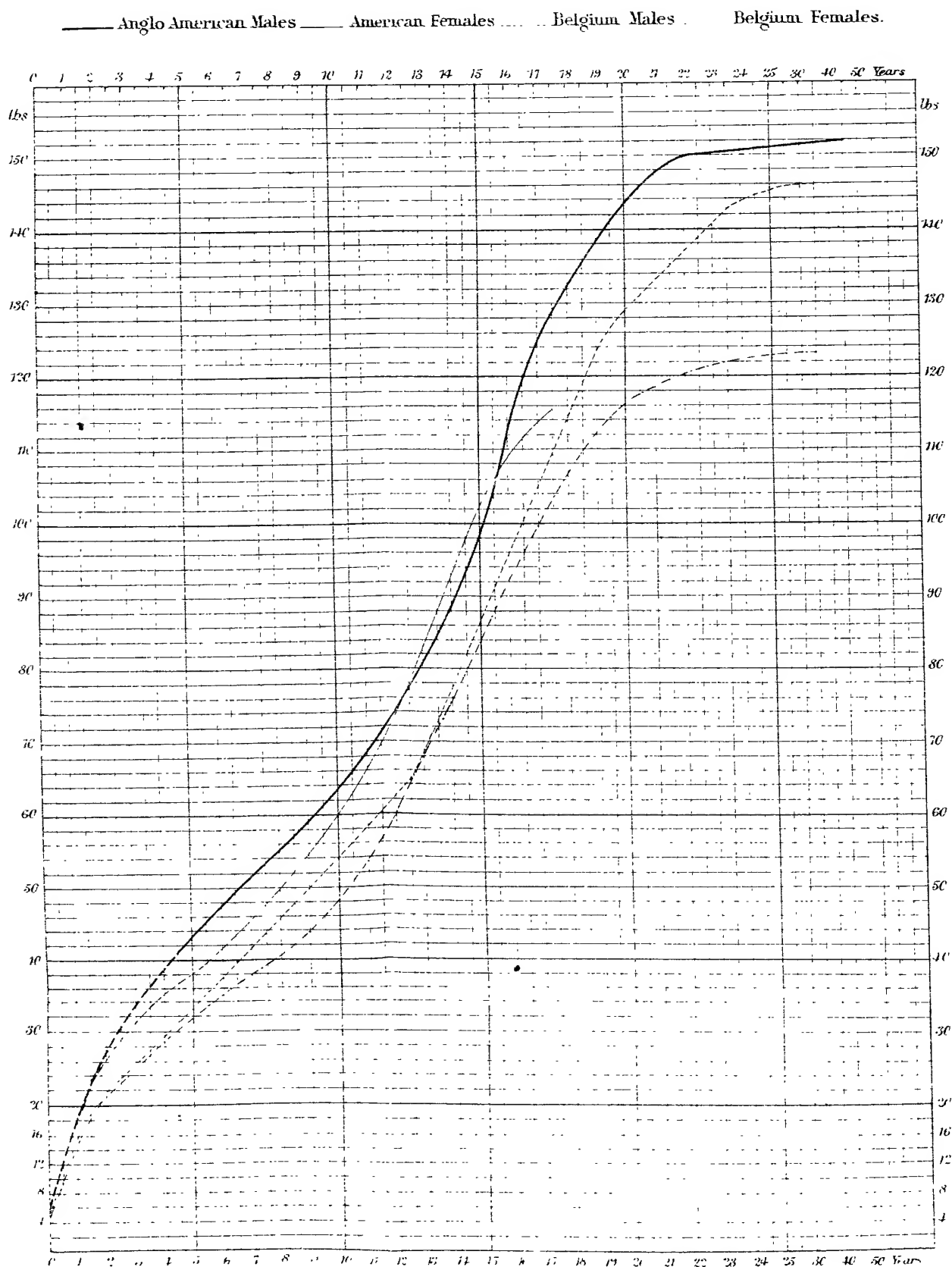
Illustrating the Report of the Anthropometric Committee.

2. DIAGRAM SHOWING THE HEIGHT AND WEIGHT OF ENGLISH AND AMERICAN POPULATION.



Illustrating the Report of the Anthropometric Committee.

4 DIAGRAM SHEWING THE WEIGHT OF BRITISH AND BELGIANS OF BOTH SEXES.



Note The British weights include the clothes The Belgium weights probably exclude the clothes

ANTHROPOLOGICAL MISCELLANEA.

EXTRACTS *from the* REPORT *of the* ANTHROPOMETRIC COMMITTEE *of* *the* BRITISH ASSOCIATION.

THE Committee was appointed for the purpose of continuing the collection of observations on the systematic examination of heights, weights, &c., of human beings in the British Empire, and the publication of photographs of the typical races of the Empire.

Mr. Charles Roberts, F.R.C.S., a member of the Committee, whose "Manual of Anthropometry" is of the utmost value to inquirers, has furnished the Committee with a series of observations, illustrated by diagrams, and accompanied by remarks on the establishment of a standard of stature and weight.

"The accompanying charts show that the average height and weight varies with the social position and occupation of the people, and to obtain the typical proportions of the British race it would be necessary to measure a proportionate number of individuals of each class, or a community which comprised all the classes in the proportions in which they exist in the whole nation. If we take the census of 1871 we shall find that such a model community would consist of 14·82 per cent. of the professional class, 47·46 per cent. of the labouring class, and 37·72 per cent. of the artisan and operative classes. But as many trades are confined to certain districts it would be very difficult to find such a representative population in a limited space in this country. The nearest approach to one would be found in some of our larger county towns, such as York, Derby, or Exeter, with a large portion of the surrounding agricultural districts.

"As the statistics which I have collected in England represent various classes rather than the general population, I have arranged them in a double series—a most favoured class and a least favoured class—and I have adopted the average of the two extremes as typical of the English nation. The American statistics, with which I have compared my own, are very valuable, as they represent the general population of the United States. Dr. Bowditch's data were collected 'in nearly all the public (common) schools of the city of Boston, in several schools in South Boston, Roxbury, Charlestown, and Jamaica Plain; in the Institute of Technology, in two Latin schools, a school for young ladies, and in several public (common) schools in Brooklyn' ('On the Growth of Children,' 8th An. Rep. State Board of Health of Mass., 1877), and Dr. J. H. Baxter thus vouches for the representative character of

"The Scotch recruits in Great Britain, though possessing the greatest stature, are lighter in weight than the English (and Welsh) by 3·3 lbs., and the Irish by 4·1 lbs., and the Irish are nearly 1 lb. heavier than the English.

"Lowering the standard of height from 66 inches in 1862-3 to 65 inches in 1864-5 lowered the average stature of the English by 0·17 inch, of the Scotch by 0·21 inch, and of the Irish by 0·25 inch; but there was an increase of weight in all three nationalities. In the Scotch it amounted to 6·7 lbs.

"It is probable that the stature of the English recruits is lowered by a large admixture of Welsh, and by the young musicians, who are almost entirely of English birth and often under the standard height.

"3. The relation between the height and weight of the two sexes of the British or Anglo-Saxon race. (Chart tracing No 3.)

"The statistics of the height and weight of females in England are very limited in extent (from 8 to 14 years of age), and refer only to the labouring and artisan class. As the average male population of England and America are so nearly identical, we may accept the measurements of American girls published by Dr. Bowditch as applicable to this country also. These were collected in the common schools in Boston and surrounding neighbourhood, under the same circumstances and at the same time as the males, and fairly represent the general population. The tracings are shown in diagrams 3 and 4. The observations at the time of birth are English, collected by myself, but all the remainder are American.

"At birth girls are about $\frac{1}{3}$ rd of an inch shorter than boys, and from 1 to 4 there is a much wider difference, but the statistics are too few to determine the amount. From $5\frac{1}{2}$ to $10\frac{1}{2}$ the stature of the two sexes is nearly the same, the advantage being slightly in favour of the boys; but after the age of $11\frac{1}{2}$ and up to $14\frac{1}{2}$ years the girls are the tallest; at $12\frac{1}{2}$ the difference is 0·84, and at $13\frac{1}{2}$ 0·88 of an inch. From $15\frac{1}{2}$ to $18\frac{1}{2}$ the growth of the boys is much greater than that of the girls. At 15 the difference in favour of the boys is 1·06 inch; at 16, 3·02 inches; at 17, 4·10; and at 18, 4·85 inches, at which age the females probably attain their full stature. (Chart tracing No. 4.)

"In considering the weight of the two sexes, we find that at birth girls are $\frac{1}{3}$ lb. lighter in weight than boys; at 5 and 6 the difference amounts to about 6 lbs., but after the latter age the weights gradually approximate, and at 12 they are identical. From $12\frac{1}{2}$ to $15\frac{1}{2}$ the girls are heavier than the boys, the difference at $13\frac{1}{2}$ being 4·52 lbs., and at $14\frac{1}{2}$, 5·02 lbs. At $15\frac{1}{2}$ the weight of the two sexes is again identical, and after this period the excess is largely on the side of the boys; at $16\frac{1}{2}$ it is 7·73 lbs., at $17\frac{1}{2}$, 13·85 lbs., and at $18\frac{1}{2}$ 19·27 lbs.

"As M. Quetelet's tables are the only complete series of observations on the height and weight of both sexes, and at all ages, we possess, and as they have been generally accepted by anthropologists and physiologists as reliable standards, especially at ages below the

adult period of life, I have added his figures to my tables, and traced their relation to the British statistics on the diagrams 3 and 4, for the purpose of comparison. M. Quetelet does not state the number of observations on which his tables were based, but they were few ("peu considerable." "*Anthrop.*" p. 182); and probably did not exceed ten individuals for each age ("*Anthrop.*" p. 24); moreover, the measurements were made on persons "regularly formed," and therefore to a certain extent selected. It is necessary to bear these facts in mind in estimating the value of M. Quetelet's tables as standards of reference, and when comparing them with the English and American tables based on many hundreds of observations for each age. M. Quetelet does not state whether the values for each age are for the birthday or for the interval between two birthdays, and I have therefore arranged them like the British, as representing the age between two birthdays. This is important, as bearing on the absolute height and weight, but not on the curves of growth. In the tracings on diagrams 3 and 4 the lines representing the Belgians would be one division of the scale nearer to the lines representing the English if the figures represent the birthdays, but the relative position of the various curves would remain the same. If M. Quetelet's figures represent the heights and weights of the birthdays exactly, there is a difference of half a year in favour of the British at all ages after that of birth.

"The curves show that growth in height is greater in the British from birth to 5 years than in the Belgians. From 6 to 12 years the curves approximate, and the difference is two-thirds less than it was at 5 years of age. From 13 to 17 years the growth of the British is much more rapid than that of the Belgians, the difference in stature at the latter age being about four times greater than it is at 12 years. At adult life the difference in height of the males of the two countries is nearly 2 inches, while the height of the females is the same in both. The most marked differences in the height of the two peoples is found in the relation of the two sexes, the British girls being taller than boys from 11 to 14 years, while the Belgian females are shorter than the males throughout their lives.

"The curves of the weight of the body of the two countries are very similar, except that the weight of the British girls from 12 to 15 is greater than the boys of the same ages, whereas the weights of the Belgians of both sexes are the same at 12, but at all other ages the females are lighter than the males.

"The differences between British and Belgian statistics cannot be attributed to differences in race as they are not uniform throughout, and we must consider M. Quetelet's tables, based as they are on so small a number of observations, rather as approximations or estimates of the stature and weight of his countrymen. The difference in the height and weight of the sexes, which was first pointed out by Dr. Bowditch ("*Boston Med. and Surg. Journal*," 1872), has quite escaped the notice of M. Quetelet, although he has published some British statistics which demonstrate its existence, and it has been confirmed by all the statistics which have been col-

"The Scotch recruits in Great Britain, though possessing the greatest stature, are lighter in weight than the English (and Welsh) by 3·3 lbs., and the Irish by 4·1 lbs., and the Irish are nearly 1 lb. heavier than the English.

"Lowering the standard of height from 66 inches in 1862-3 to 65 inches in 1864-5 lowered the average stature of the English by 0·17 inch, of the Scotch by 0·21 inch, and of the Irish by 0·25 inch; but there was an increase of weight in all three nationalities. In the Scotch it amounted to 6·7 lbs.

"It is probable that the stature of the English recruits is lowered by a large admixture of Welsh, and by the young musicians, who are almost entirely of English birth and often under the standard height.

"3. The relation between the height and weight of the two sexes of the British or Anglo-Saxon race. (Chart tracing No. 3.)

"The statistics of the height and weight of females in England are very limited in extent (from 8 to 14 years of age), and refer only to the labouring and artisan class. As the average male population of England and America are so nearly identical, we may accept the measurements of American girls published by Dr. Bowditch as applicable to this country also. These were collected in the common schools in Boston and surrounding neighbourhood, under the same circumstances and at the same time as the males, and fairly represent the general population. The tracings are shown in diagrams 3 and 4. The observations at the time of birth are English, collected by myself, but all the remainder are American.

"At birth girls are about $\frac{1}{3}$ rd of an inch shorter than boys, and from 1 to 4 there is a much wider difference, but the statistics are too few to determine the amount. From $5\frac{1}{2}$ to $10\frac{1}{2}$ the stature of the two sexes is nearly the same, the advantage being slightly in favour of the boys; but after the age of $11\frac{1}{2}$ and up to $14\frac{1}{2}$ years the girls are the tallest; at $12\frac{1}{2}$ the difference is 0·84, and at $13\frac{1}{2}$ 0·88 of an inch. From $15\frac{1}{2}$ to $18\frac{1}{2}$ the growth of the boys is much greater than that of the girls. At 15 the difference in favour of the boys is 1·06 inch; at 16, 3·02 inches; at 17, 4·10; and at 18, 4·85 inches, at which age the females probably attain their full stature. (Chart tracing No. 4.)

"In considering the weight of the two sexes, we find that at birth girls are $\frac{1}{3}$ lb. lighter in weight than boys; at 5 and 6 the difference amounts to about 6 lbs., but after the latter age the weights gradually approximate, and at 12 they are identical. From $12\frac{1}{2}$ to $15\frac{1}{2}$ the girls are heavier than the boys, the difference at $13\frac{1}{2}$ being 4·52 lbs., and at $14\frac{1}{2}$, 5·02 lbs. At $15\frac{1}{2}$ the weight of the two sexes is again identical, and after this period the excess is largely on the side of the boys; at $16\frac{1}{2}$ it is 7·73 lbs., at $17\frac{1}{2}$, 13·85 lbs., and at $18\frac{1}{2}$ 19·27 lbs.

"As M. Quetelet's tables are the only complete series of observations on the height and weight of both sexes, and at all ages, we possess, and as they have been generally accepted by anthropologists and physiologists as reliable standards, especially at ages below the

adult period of life, I have added his figures to my tables, and traced their relation to the British statistics on the diagrams 3 and 4, for the purpose of comparison. M. Quetelet does not state the number of observations on which his tables were based, but they were few ("peu considerable." "Anthrop." p. 182); and probably did not exceed ten individuals for each age ("Anthrop." p. 24); moreover, the measurements were made on persons "regularly formed," and therefore to a certain extent selected. It is necessary to bear these facts in mind in estimating the value of M. Quetelet's tables as standards of reference, and when comparing them with the English and American tables based on many hundreds of observations for each age. M. Quetelet does not state whether the values for each age are for the birthday or for the interval between two birthdays, and I have therefore arranged them like the British, as representing the age between two birthdays. This is important, as bearing on the absolute height and weight, but not on the curves of growth. In the tracings on diagrams 3 and 4 the lines representing the Belgians would be one division of the scale nearer to the lines representing the English if the figures represent the birthdays, but the relative position of the various curves would remain the same. If M. Quetelet's figures represent the heights and weights of the birthdays exactly, there is a difference of half a year in favour of the British at all ages after that of birth.

"The curves show that growth in height is greater in the British from birth to 5 years than in the Belgians. From 6 to 12 years the curves approximate, and the difference is two-thirds less than it was at 5 years of age. From 13 to 17 years the growth of the British is much more rapid than that of the Belgians, the difference in stature at the latter age being about four times greater than it is at 12 years. At adult life the difference in height of the males of the two countries is nearly 2 inches, while the height of the females is the same in both. The most marked differences in the height of the two peoples is found in the relation of the two sexes, the British girls being taller than boys from 11 to 14 years, while the Belgian females are shorter than the males throughout their lives.

"The curves of the weight of the body of the two countries are very similar, except that the weight of the British girls from 12 to 15 is greater than the boys of the same ages, whereas the weights of the Belgians of both sexes are the same at 12, but at all other ages the females are lighter than the males.

"The differences between British and Belgian statistics cannot be attributed to differences in race as they are not uniform throughout, and we must consider M. Quetelet's tables, based as they are on so small a number of observations, rather as approximations or estimates of the stature and weight of his countrymen. The difference in the height and weight of the sexes, which was first pointed out by Dr. Bowditch ("Boston Med. and Surg. Journal," 1872), has quite escaped the notice of M. Quetelet, although he has published some British statistics which demonstrate its existence, and it has been confirmed by all the statistics which have been col-

lected since. The difference is due to the more rapid growth and the attainment of maturity at an earlier age of females than males, for we find that the curve representing females between the age of $11\frac{1}{2}$ to $18\frac{1}{2}$ is almost identical with the curve representing males between the age of $14\frac{1}{2}$ and $21\frac{1}{2}$ years, these two periods corresponding with each other in the physical development of the two sexes. It is probable that the curve representing males from 11 to 14 years is depressed a little by school life and the earlier occupation of boys than girls, but the chief difference is obviously attributable to the quicker development of girls, as it is found to exist in all classes of the community. The large number of observations included in my tables show that the difference is constant, and it must therefore be accepted as a fact essential to the proper study of the growth of civilised races, no matter from what cause it may arise."

The attention of the Committee has been directed to the progress of anthropometric research in other countries. The "Annals of Statistics" for 1878, published by the Minister of Agriculture, Industry, and Commerce of Italy, has two anthropometric papers of considerable interest directly bearing on the subject of this Committee's inquiry. The first is by Dr. L. Pagliani on the development of the human body. Referring to his work "Sopra alcuni fattori dello sviluppo umano," to Dr. Bowditch's investigations as to the growth of children, and to "Die Entwicklung des Menschen in den der Geschlecht-reife vorhergehenden spätern Kinderjahren und im Jünglingsalter (von 7 bis 20 Jahren) in Verhältniss zum Geschlecht, zur Ethnographie und zu der Nahrung und Lebens Beingungen in Moleschott's Untersuchungen zur Naturlehre des Menschen und der Thiere," Dr. Pagliani shows, up to 10 years of age, the stature and weight of children of both sexes present but little difference, though they are always in favour of boys; that from 10 to 15 years of age the difference becomes greater, and is always in favour of girls; and that after 15 the boys reassert their superiority, and are found to be taller and heavier. Dr. Pagliani further shows that the economic condition of the child has much influence on his or her weight and stature. In weight and stature alike the children of the labouring classes stand lower than the children of the well-to-do classes. This is the result of a considerable number of observations in Turin, and is fully borne out by the diagram which accompanies the memoir. Signor Cesare Lombroso, in his paper "On the Anthropometry of the Lucchesia and Garfagnana," endeavours to prove from the high stature, black hair, formation of the head, tending to the dolichocephalic, or head of the African type, *i.e.*, one with its diameter from side to side notably shorter than the diameter from front to back, the opposite to brachycephalic, and from other distinctive characteristics, that the people of those States come from the old Etruscan race. Both memoirs illustrate in a conspicuous manner the utility and importance of the inquiry which this Committee has undertaken to institute. M. Quetelet's work upon Man ("Sur l'homme et le développement de ses facultés") is well known.

But at this moment extensive inquiries in the same direction are being made in Germany, the United States, and other countries. Recent political events, moreover, have imparted a fresh interest on questions of races, and if we are able to extend our researches over all the portions of the British Empire, the home of so many races, we may contribute largely to the amount of general knowledge on the physical and intellectual powers of man.*

Professor Bowditch, of Massachusetts, has published a supplementary investigation of the growth of children, with suggestions in regard to methods of research, in the 10th Annual Report of the State Board of Health (Boston, 1879). His object was to ascertain whether differences of race or differences in the mode of life affect the rate of growth the more profoundly. The general conclusion he arrives at is that mode of life, as indicated by the occupation of the parents, is equally important with race in determining the rate of children. In his remarks on Anthropometrical methods, Dr. Bowditch reprints, with approval, the forms and instructions which have been issued by this Committee, and recommends the chart prepared by Mr. Roberts. He also advises the use of the card system, extensively adopted in Germany, in which the facts relating to every single person are collected upon a card, which can be combined with other cards in any number of ways, according to the nature of the facts desired to be grouped together. This plan the Committee have resolved to adopt wherever it can conveniently be applied, and a form of card has been drawn up for use by the head-masters of public schools.

A special inquiry has recently been instituted in almost every primary school throughout Switzerland, at the instance of a Committee of the Société des Sciences Naturelles, for the purpose of ascertaining the distribution of the different colours of the iris, hair, and skin, as connected with the settlement of the aboriginal races in that country.

The coincidence of these several inquiries with that undertaken by this Committee is exceedingly interesting, and leads to the hope that, from all those various sources, information of great value may in due course be elicited.

Dr. BEDDOE, F.R.S., chose for the subject of his presidential address to the Bath and Bristol Branch of the British Medical Association last year, "The Progress of Public Health in our Own Times," which he treated from the statistical rather than the sanitarian point of view. The generation since 1838, when our registration system was founded, has seen great material and economic changes, the most important being those which have contributed to the increase of town population and the diminution of rural population. The mischiefs this aggregation tends to cause have been largely met by sanitary and philanthropic measures; though all the changes in the method and plan of building habitations have not been for the

* Communicated by Professor Leone Levi.

better. Forty years ago it was believed, perhaps wrongly, that the expectation of life was higher in England than in any other country. It certainly is not so now. The death-rate for the four years 1873 to 1876 was in England 21·8 per thousand, which exceeds the death-rate in Norway, Sweden, Denmark, and Belgium. The death-rates in New Zealand, Australia, and Tasmania are considerably lower than here, showing that the race is capable of better things under better conditions. Though the collection of people into cities increases the mortality, it by no means follows that the larger the town the worse will be the death-rate. Thus, in Scotland, the eight "principal towns" have a death-rate lower than the towns with from 10,000 to 25,000 inhabitants. The leading cause of this is doubtless the centripetal attraction of capital, energy, intellect and medical skill towards the largest towns. The excess of births over deaths is greatest in mining and metal-working towns and villages; and thus these unlovely regions, whence sweetness and light are banished, are the breeding grounds of the coming generation of Englishmen. The seasonal variations of mortality show maxima in January and July, minima in June and October for London; for Europe in general, the worst season seems to be the spring; for Iceland, the summer. Whether the public health in Great Britain, as measured by death-rate, has improved during the past 40 years, admits of doubt: that it has deteriorated in the northern part of the island scarcely admits of any. That the condition of women has improved relatively to that of men is perfectly clear. Deaths in infancy have increased. Men have a tendency to break down earlier than they used to do. Apoplexy and paralysis have increased. Phthisis has diminished as a registered cause of death, but bronchitis has enormously increased, owing chiefly to the extension of towns, and the growing defilement of the air. Many of the conditions of life that surround us are unfavourable; but some of them may be modified, and to others we may learn how better to adapt ourselves or to offer resistance. Working with these aims we may not, indeed, live to see Hygeiopolis, but we may attain such a measure of improvement as we may be able to regard with satisfaction and thankfulness.

THE JOURNAL
OF THE
ANTHROPOLOGICAL INSTITUTE
OF
GREAT BRITAIN AND IRELAND.

DECEMBER 9TH, 1879.

E. BURNET TYLOR, Esq., F.R.S., *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The following list of presents were announced, and thanks were ordered to be returned to the respective donors:—

FOR THE LIBRARY.

From the EDITOR.—*Revue Internationale* No. 11.

From the ACADEMY.—*Bulletin de l'Académie Impériale de St. Petersburg.*

From the SOCIETY.—*Journal of the Society of Arts*, Nos. 1410 and 1411.

From the EDITOR.—“*Nature*,” Nos. 526 and 527.

From the EDITOR.—“*Athenæum*,” No. 623, Nov. 1879.

From the EDITOR.—*Revue Scientifique*, Nos. 22 and 23.

From the SOCIETY.—*Proceedings of the Royal Geographical Society*, Vol. I. No. 12.

From the SOCIETY.—*Bulletins de la Société d'Anthropologie de Paris*, April and July 1879.

From the UNIVERSITY.—*Memoirs of the Science Department, University of Tokio, Japan.* Vol. I, Part 1. By Edward S. Moore.

THE PRESIDENT made the following remarks before reading extracts from a letter on the subject of Australian Marriage Laws:—

This communication, addressed to me by the Rev. Lorimer Fison, and dated Levuka, Fiji, August 17th, 1879, is of interest to Anthropologists as tending to clear up a problem which has somewhat perplexed them since the publication of Mr. L. H. Morgan's important work, "Ancient Society." At p. 54, on the strength of observations by Mr. Lance communicated by Mr. Fison, Mr. Morgan brings forward the Australians as presenting in their social system a remarkable approach to promiscuity. The class marriage system of Australia, under which a man of a particular class may only take a wife of a particular class, has long been well known; indeed, one variety of it is described by Mr. Forrest, the explorer, in his letter, from which extracts will follow this. Thus among the Kamilaroi, it is well understood that a man of the class Kubbi can only marry a woman of the class Ippata. But Mr. Morgan considered it to be part of the system that every Kubbi is husband to every Ippata, having a recognised right to treat as his wife any woman belonging to this class whom he might meet, and so with the other classes, there being four male and four female classes. In his words "one quarter of all the males are united in marriage with one quarter of all the females of the Kamilaroi tribes." As, however, it seemed to me that such a social system would scarcely hold together, and that probably the information on which it was asserted might prove to bear a less extreme interpretation, I took an opportunity of inquiring by letter of Mr. Fison, as to the latest information on the subject. It will appear from his reply that the native marriage system, though lax, is in fact confined within manageable limits. Mr. Fison's letter, which contains also interesting information on collateral points, runs as follows:—

"With reference to the point mentioned in your letter as to 'marriage between whole male and female classes,' I may say that the information given to me by Mr. Lance has been confirmed by not a few other competent observers. Mr. Morgan, however, seems in his 'Ancient Society,' to treat that fact as showing actual present-day marriage of that kind, whereas present usage in Australia as elsewhere is considerably in advance of ancient rule. But this fact remains. We have

traced the classes from the extreme west (N.W. Cape) to the extreme south (Mount Gambier) through New South Wales and Queensland up to Port Darwin in the north, and turning aside to a Telegraph Station almost in the centre of the continent. Nearly everywhere among those tribes* the classes have the same arrangements, though the words used to designate them are widely different, and *a man of any class is admitted to the marital privileges of his class in any tribe other than his own*, that is, if the other tribe be one of those which have a like organisation. Thus, say that A and B are two intermarrying classes. Then, if a Kamilaroi native from the Darling River, belonging to class A, visited a tribe at Port Darwin, he would be provided with a woman from class B in that tribe, as his temporary wife. In the gesture language of the aborigines there is 'a peculiar folding of the hands,' which denotes a request for, or an offer of, this right, as the case may be. This I give on Howitt's own authority. You are doubtless aware that he is a well known Australian explorer, and has seen much of the wild tribes.

"The classes being thus spread over the continent, and the marital rights of A being acknowledged and granted without respect to locality, it seems probable that the various tribes are the result of the expansion of one tribe whose old regulations they have kept up. It seems to me that among savages of the Australian type we have to keep fast hold of the fact that there is no such thing as personal individuality, if I may so speak. The class is the individual. It is married to another class. Its child is the whole class resulting from that marriage, and is the successor of its mother's, not its father's, class. That seems to me the fundamental idea. But usage gradually departs from the old rule, and when we get to descent in the male line the progress is very rapid. This is saying very much in a very few words, and taking many things for granted. I cannot write at length now, because being away from home, I have not access to my notes. . . .

"I may, however, note the following facts bearing upon the point mentioned by you. 1. The right of a class irrespective of tribal locality. 2. The fact that what appeared to Eyre to be promiscuous intercourse is strictly regulated by the class rules. 3. A warrior taking a woman in war, or stealing a woman from another tribe, cannot have her to wife if she be of a class prohibited to him. 4. In the Kuruai tribe (which is an extremely interesting exception to the ordinary class-tribe, to use a short term) marriage, as a general rule, cannot be effected

* We have found other tribes not having the Kamilaroi class arrangement. Of these more by-and-by.

otherwise than by elopement. But the man must give previous notice to those males who are his *pures* (I do not know how otherwise to designate them without going into a long explanation) and they must meet the woman in the bush and use her as their wife, before he can elope with her.

"I may also add that the *privilege of Ipai*, noted by you in your work on 'Early Institutions,' does not *upset the entire arrangement*, as it appeared to you to do. This, if I remember rightly, is your view of it. It simply permits the marriage of Ipai with some, though not with all, of his paternal half-sisters. I think it is only a local infringement of the class-rule. It never sanctions marriage with the uterine half-sister. When Mr. Lance brought it under my notice, I pointed out its importance to my friend Mr. Ridley, as showing the probability of subdivisions of the classes distinguished by totems. Mr. Ridley was soon afterwards commissioned by the Government at the instance of Professor Max Müller to make certain philological inquiries among the tribes with which he was acquainted. I went to his house, and drew up a memorandum on the subject for him to take with him, suggesting what the probable marriage arrangements would be found to be. He made the inquiry, and found that not Ipai only, but all the other classes of males also in that tribe, or those tribes, had the same privileges, and that the regulations were based on totemic subdivisions."

The following extracts, also relating to Australian marriage laws, were read from a letter addressed to Sir Charles Nicholson, Bart., by Mr. John Forrest, Acting Surveyor-General of West Australia:—

"Perth, West Australia, September 7th, 1879. . . . I take the opportunity of forwarding a few notes, taken down by me last year when on the north-west coast, near Nichol Bay. The facts I am about to give can be thoroughly relied on and are well understood in the country by all the natives. They are as follows:—

"There are four families, viz., 'Boorunggnoo,' 'Banigher,' 'Kimera' and 'Paljarie.' The two former may intermarry, as also the two latter, but no other alliance is allowable.

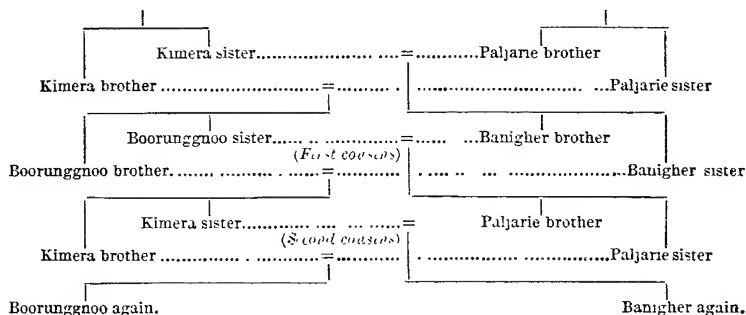
	Offspring.
Boorunggnoo (male) ..	} Kimera.
Banigher (female) ..	
Banigher (male) ..	} Paljarie.
Boorunggnoo (female)..	
Kimera (male) ..	} Boorunggnoo.
Paljarie (female) ..	
Paljarie (male) ..	} Banigher.
Kimera (female) ..	

"But as among the natives the Kimera and Paljarie are said to be the parent stock, I have supposed it to have been as follows :—

"In the beginning there were four persons, viz., a brother and sister of the Kimera family, and a brother and sister of the Paljarie family. They intermarried, the Kimera man taking the sister of the Paljarie man, and giving his sister to the Paljarie man. We will suppose that these two marriages produced each a boy and a girl.

"The Kimera man and Paljarie woman would produce Boorunggnoo,' and the Paljarie man and Kimera woman would produce 'Banigher.' These would be first cousins, and on their marrying, their offspring would be second cousins, and so on, so that the longer the period elapsing from their commencement, the more distant would be the relationship.

"I have not studied the subject much farther, but will also attach a diagram, showing what I mean, and I should be very willing to give any further information on the subject that might be required.



"I shall be glad if you will use this information in any way you please, and I hope it may interest some of your friends. If it is only examined casually, it will be at once noted how singular and fixed is the law, and it would seem as if it had a wise object, and that it is not mere chance. To see such well defined rules amongst a barbarous and illiterate people is to me a great subject for reflection."

The following paper was read—

SAVAGE and CIVILIZED WARFARE.

By J. A. FARRER, Esq.

NOTHING perhaps is more characteristic of the wide difference between savagery and civilization than the fact that the one chooses the past and the other the future as the playground for its dreams of a happier condition of humanity. The one believes in the lapse, the other in the progress, of mankind. There is evidently all the practical difference in the world between these two modes of regarding history. The Hervey Islander, for instance, who has his fanciful myth of the golden age when wars were not, and of the train of sad events that first brought them upon earth, is not thereby led to the idea of contributing by his own efforts to the restoration of peace upon earth, but is rather disposed to accept a state of warfare as part of the unalterable miseries of existence. But the civilized man who sees before and not behind him the light of better days, himself unconsciously aids, by the mere fact of his historical faith, in the accomplishment of the end he dreams of, and hastens the advent of the future he desires.

It is a melancholy reflection that in this difference of regarding the problem of war, lies almost the only real difference between savage and civilized communities in the general matter of warfare. There is, indeed, a superficial difference between them in their tactics, weapons, usages; a civilized army does not actually worship a war-god, does not mutilate its dead foes, nor sacrifice nor torture its prisoners; and it sometimes, or generally, spares the lives of women and children. But there is no such difference as to make the expression *civilized warfare* other than the most flagrant contradiction of terms—a contradiction which frequently leads to the strangest possible distortion of moral ideas, as, for instance, in that very prevalent confusion of thought, which can see no harm in sticking a man with a bayonet, but the utmost barbarity in doing so with an assegai, which would teach us indeed to refrain from mutilating the dead whilst inculcating no scruples as to what extent we mutilate the living. There may be, and of course are, degrees in the savagery and cruelty of warfare; but warfare can no more be civilized than a circle can be a square, or a cold thing hot. Indeed, warfare is all the worse which claims to be civilized, or as Mr. Bancroft has well said, "War is a barbarism which civilization only intensifies."

There exists in the world a popular form of sophistry which

seeks to free certain phenomena from the reproach of being evil by showing that they may lead or have led to good results, thereby as hopelessly confusing means and ends as if it were contended that pain, undergone for health's sake, were not in itself evil *quâ* pain, or that a theft could be morally good which was intended for a charitable object. Without applying this theory to the subject of war, it is nevertheless obvious that civilization has owed so much to war, that it even seems as if, without the one, the other might have been unattainable. From the necessity of combination for purposes of offence or defence arose the social capacity for community of life and action generally; and whatever there is in the world of complex political association, or of wide areas of political union within which culture may peaceably advance, owes its existence to the pressure of constant hostile relations. It is upon a military model that social order everywhere has been gradually organized, with its political and ecclesiastical hierarchies, its powers within powers, its ranks under ranks, its concentration of authority; and Mr. Herbert Spencer has drawn a most instructive parallel, showing how the form of government of any people varies with, or even depends on, its military character, and how, whilst the tendency of war is towards despotism in government, the tendency of peace is towards liberty. Among people like the Esquimaux, who are said not even to know what war means, political chieftainship appears in its most rudimentary type; whilst in the civilized world a war-seeking policy leads surely and swiftly to growth of despotism at home.

Connected with the subject of war in savage life, it is interesting to trace briefly the effect of military necessities on the political and religious development of savage races. Politically, their effect seems uniformly to have taken the direction of tightening the reins of government and of widening the distinctions between classes. There is no condition of things under which men's different qualities of courage and cunning tend more constantly to become prominent, and to produce and perpetuate more strongly-pronounced inequalities, than the hostile relations in which savage communities so frequently stand to one another. In this fighting state, which is not necessarily, be it said, to be assumed as the primitive or natural state of mankind, the social privileges accorded to superior courage are those naturally exacted by superior might; and it is conceivable that the general right of inheritance had its origin in the once exorbitant claims of savage captains in war. Among many savages, even of no advanced type, military leadership is hereditary, if not on the eldest son then on some other son or relation of a deceased warrior; it is seldom purely elective, or

allotted to personal merit. It would be difficult to understand this tendency among savages to create hereditary honours or functions, were it not for the close connection that exists in savage life between war and sorcery, the warrior and the magician, and the consequent readiness to deify a great conqueror, even to the clothing of his nearest of kin with attributes of divinity. Given a great warrior and sorcerer, like their ancestor whom the Namaqua Hottentots worship as divine, and the idea becomes intelligible, that for any one save his own son or brother to succeed to his possessions or his power would constitute the deepest profanity to his memory, the grossest violation of respect towards the deceased, and one within his power to avenge from his vigilant survival in the spirit-world. The gradual extension of such a feeling from military to civil life would be but another illustration of the tendency of conceptions of military origin to pass into power over the whole range of human action and thought.

The same tendency again to deify warriors or their relations, causes similar lines of demarcation to arise between a warrior and non-warrior class, raising the former immeasurably above the latter, and conferring upon it attributes which contribute strongly to the preservation of social distinctions, and to the maintenance of a hierarchy of classes or castes. The feeling in Greece that a commercial life as compared with a political or military one was base and ignoble, and the prejudice still existent in England in favour of a profession whose object is manslaughter, is the same feeling which in the Tongan Islands kept the Mooas and Tooas in contented subjection and subordination to the higher classes, the priests and nobles. It is beyond doubt that civilization has been indebted to such a condition of things; for the division of society into classes implies a division of labour, and from a division of labour arises the best or only possibility of new arts and inventions. It is precisely where a pacific life is possible or preferred, that not only is the political structure of the simplest and loosest kind, but the material development is of the lowest description.

If we inquire next what influence war has had on the religious advancement of savages, it will appear that there again it has been very considerable, in giving shape and consistency to men's ideas of the supernatural. The theology scarcely exists in the world, wherein the relation between the worshipper and his deity is not formed on the analogy of the relationship that connects the subject with his conqueror, or a lower with a higher caste. Hence it is that primitive theology is not only anthropomorphic, but anthropomorphic on a bellicose model. The chief god becomes the god of battles, the conqueror of other

peoples' gods, as in Israel; the terrible war-god, as in ancient Mexico. The homage due to him therefore finds its exemplar ready to hand in the homage paid to earthly potentates; and the conceptions of him, of his attributes and wishes, are precisely those entertained of human warriors and illustrious heroes. If a human monarch receives, and is gratified by tributes of oxen, fruit, or slaves, similar tributes or sacrifices will be paid, as they are all over the world, to the gods; cattle and men being slain to do them honour, or, more usually, to procure their favour. If, as in Turkey to this day, the burning of incense be a recognised mode of showing reverence to a superior, such an act of homage will be naturally transferred to the worship of the gods; and we actually find it so not only in the pipe of the Red Indian, but in the practice of every church and chapel of Catholic Christendom. The prevalence of the ideas of sacrifice and incense in the highest religion of the world sufficiently indicates the extent to which religion among the lower races is likely to be formulated in accordance with the principles of military dominion; and if, in the formation of political society, some benefit may be ascribed to the action of war, it is difficult to name a single benefit that has accrued to the world from this close and constant association between military and religious ideas.

The religion of the Khonds of Orissa may be taken as a fair illustration of the pernicious influence exercised by a military life upon all the virtues associated with the higher claims of morality—those, namely, of humanity and goodwill to a neighbouring community. The conception of the Deity as the arbiter or even the cause of war, is carried by the Khonds to a degree which, if pardonable in their condition, is certainly none the more pleasing. Wars they never consider to be their own act or their own fault; they are always the act and will of their war-god, Loha Pennu. Every village has a grove sacred to Loha Pennu, and whenever fevers or tigers rage or ravage it is accepted as a hint from Loha Pennu that his service has been too long neglected. The extent to which they carry this theory of the divine origin of war is well seen in part of the prayer they use when peace is restored: "Loha Pennu said to himself, Let there be war, and he forthwith entered into all weapons, so that from instruments of peace they became weapons of war; he gave edge to the axe, and point to the arrow; he entered into all kinds of food and drink, so that men in eating and drinking were filled with rage, and women became instruments of discord instead of soothers of anger." This is an admirable way of disposing of those conscientious scruples about the justice or injustice of a war which sometimes trouble more

advanced communities ; nor would the terms of the following prayer to Loha Pennu before a war find so open an expression in the martial utterances of any Christian power :—"Let our axes," prays the Khond. "crush cloth and bones as the jaws of the hyæna crush its prey. Make the wounds we give to gape. . . When the wounds of our enemies heal, let lameness remain. Let their stones and arrows fall on us as softly as the flowers of the mowa-tree fall in the wind. . . Make their weapons brittle as the long pods of the karta-tree."

This is of course all savage enough, but even the Khonds esteem peace above war, and conduct war under certain laws. As war is the god's concern, not theirs, so it is with peace ; and the ceremonies are somewhat elaborate on either side when it is desired to know whether peace has become the command of the war-god. If it has, the joy of the peace dance which lasts three days, "is regarded as the very highest attainable on earth." Before a war begins, it is necessary, previous to an attack, to allow the enemy time to complete the same fetichistic ceremony as the offensive tribe performs itself. As their own priest goes to the enemy's land to cut from it a branch of a tree which is afterwards dressed in clothes and armour to personate one of the hostile force, and thrown down at the shrine of the war-god in silent appeal for his co-operation in the coming struggle, so sufficient time must be allowed to the enemy for the performance of a similar ceremony.

Even this custom, elementary as it is as a law of war, in regulation and restraint of it, is an advance on the merely predatory mode of warfare, such as that in vogue among the Ahts, where no notice nor declaration of war is made, but one tribe falls on another with no more warning than would be considered obligatory by a pack of wolves. It is interesting to note the presence of such laws of war among the lower races, because it is generally assumed that they are only the product of an advanced civilization, only the glory of a so-called civilized warfare. The Caffres consider it shameful to attack their enemy without a declaration of war, and when war has broken out they refrain from seeking to starve him out ; they spare the lives of women and children, and restore them after the war. The Canarians, according to an old Spanish writer, "held it as base and mean to molest or injure the women and children of the enemy, considering them as weak and helpless, therefore improper objects of their resentment ; neither did they throw down or damage houses of worship." Respect towards the weaker sex in war is also asserted of the Winnebagoes and of the Sioux Indians, and in Samoan warfare it is considered cowardly to kill a woman. But the case of the wild Abipones

is perhaps the most remarkable in this respect, on account of the general savagery of their lives. Yet Dobritzhofer assures us that not only did they think it unworthy of them to mangle the bodies of dead Spaniards, as other savages did, but that they generally spared the unwarlike, and carried away innocent boys and girls unhurt. The Spaniards, Indians, Negroes, and Mulattoes, he says, taken by them in war, they did not use like captives, but treated with kindness and indulgence, almost like children. Many displayed the tenderest compassion and confidence towards their prisoners, nor did Dobritzhofer ever see a single captive so much as punished by a word or a blow.

There are other instances in savage life of the recognition of certain laws of war. The Fijians who were addicted to torturing their prisoners would yet spare the fruit-trees of their enemy, unless his obduracy greatly prolonged the war. In olden Virginia it was customary before a war to send a message to the hostile force, to the effect that in the event of their defeat, all who submitted within two days should live. The Tongans held it as sacrilege to fight within the precincts of the burial places of their chiefs; and the greatest enemies must perforce meet there as friends, under penalty of being visited with premature death. They also observed a curious custom, consequent on the obligation of everyone to fight on the side of that chief on whose island they might chance to be at the time when war was declared, by which a brief armistice was always allowed, to enable each party to take farewell of those friends and relations on the other side with whom they were so shortly to engage in deadly combat.

The inviolability of ambassadors, the observance of treaties and truces, resort to mediation for peace, are far from being unknown in the warfare of races whose knowledge of strategy and tactics is of course not on a level with the European standard. It is, for example, through the mediation of a friendly tribe that the Khonds seek to obtain peace with their enemies. But proposals for peace are perhaps more commonly sent by ambassadors, who bear some recognised emblem of the nature of their mission—a whale's tooth in the Fiji Islands, a young plantain tree or a green branch of the ti plant in the Sandwich. All the tribes that Catlin visited in North America held a white flag of skin or bark as the inviolable symbol of a truce; and even the Shoshones of California, who kill their prisoners of war, especially women, with cruel tortures, observe the common Indian custom of ratifying the conclusion of hostilities by the pipe of peace.

The greatest pains are often taken to impress the terms and the treaty of peace most vividly on the memory of the con-

tracting parties by striking and intelligible ceremonies. In the Fiji Islands hostilities were closed by a meeting of the two combatant forces, at which they threw down their arms at one another's feet. On the Hervey Islands the breaking of a number of spears by the warrior chief against a large chestnut tree with great formality was the token of the cessation of war; the almost imperishable coral tree was planted in the valleys to signify the hope that as the tree was, so might the peace be; and after the drum of peace had been solemnly beaten round the island, it was unlawful for any man to carry any weapon, or to cut down any iron-wood, which was capable of being turned into an instrument of destruction. The chief symbol of peace on the Sandwich Islands was a wreath, woven conjointly by the leading chiefs of either side, and placed in one of their temples.

In a similar way the Tahitians made a wreath of green boughs, furnished by each side, and also made a band of cloth together, depositing both the band and the wreath in the temple, and invoking dire imprecations on the first side that should violate the peace and forget the reconciliation.

It is of obvious practical importance to notice these traces among savages of moral restraints in the exercise of war. To a country that is never long without one of the so-called "little wars" on its hands, it is necessary to have some general ideas as to how far savage tribes are capable of any other restraint, save that of superior might, in political dealings with their neighbours; how far any sense of right or wrong is likely to enter into their consideration of the policy of a war on any given occasion; how far they are capable of understanding or of regarding the sanctity of covenants and treaties.

It is said that the Indians of North America very honestly kept their treaties with the English, till they were taught by the French to adopt looser principles.

And it is probable that the late Zulu war would never have occurred had it been possible for a Christian Commissioner to believe that a heathen nation could do such a thing as keep its word, refraining from invasion or attack so long as it was not invaded or attacked itself, by reason of its confidence in the strict observation by either side of a solemn agreement made between itself and its neighbour. War might have been averted had there not been a slowness to believe that overtures for a peace by a savage could be intended as aught else than a military *ruse* or could be expressed in any other language than the diplomatic forms of European warfare.

The civilizing pretext, by which it is so often sought to lull the moral sensibilities of a country, suggests the interest which would attach to an inquiry, how far similar wars have had

beneficial effects in the abolition of barbarous customs or in the engraftment of more refined manners on a conquered savage race. The Peruvians, who were constantly engaged in wars with savage tribes on their borders, before beginning their war would call upon their enemy not only to adopt the Religion of the Sun, but to put an end to their cannibalism, their human sacrifices, and their other vices. But it was not so much by force as by the contagion of example that they chiefly sought to spread civilization. Says Prescott of them: "They sought to soften the hearts of the rude tribes around them, and melt them by acts of condescension and kindness. Far from provoking hostilities, they allowed time for the salutary example of their own institutions to work its effect, trusting that their less civilized neighbours would submit to their sceptre, from a conviction of the blessings it would secure to them." They employed negotiation, conciliatory treatment, and presents to leading men among the tribes; and if all these failed, then they resorted to war, but to war which at every stage was readily open to propositions of peace, and in which any unnecessary outrage on the persons or property of their enemy was punished with death. It is undeniable that culture has been promoted by war in many instances, though it is probable that peaceful efforts, those of missionaries, for example, have done as much or even more. Strabo says that the Bactrians had a custom of giving their fathers, if they outlived their faculties, to their dogs, and that Alexander the Great when he conquered them prohibited the practice. The grandest treaty of peace recorded in history was, Montesquieu thinks, that which Gelo, an ancient king of Syracuse, made with the Carthaginians. For when he had defeated 300,000 of them, he required of them, as a condition of peace, a condition which was of advantage chiefly or only to themselves—namely, that they should cease to sacrifice their children to their gods. But for the reason that it is easier to make such conditions than to secure their permanent observance, there can be no pretext for a war less satisfactory than zeal in print or peace-conditions for the improvement of humanity.

Titles of honour, both in savage and civilized life, are among the favourite devices of the god of war for the maintenance of his worship. The king of France, says Montesquieu in one of his Persian Letters, has been known to carry on great wars with the help of no other fund than the sale of titles of honour. In like manner a Fijian would derive an honorary name from the clubbing to death in war of a human being of any age or sex, being entitled to call himself the Dog, Canoe, or Fort of any living chief of great renown; and warriors of rank esteemed it an honour to be generally known by their countrymen as the

"Waster" of such-and-such a coast, the "Divider" or "Devastator" of such-and-such a district. In North America the tribes had a most elaborate scale of honours, apportioning merit to the nicest distinctions of costume. According to the mark on a warrior's robe, it was known at a glance whether he had slain a man or a woman, or whether his glory only rested on the slaughter of a girl or a boy. Among the Dakota tribes, certain marks on the coveted eagle's feather denoted the warrior's title to esteem. The feather with a red spot on it signified simply that the warrior had killed an enemy; a notch cut in it, and the edges painted red, showed that the enemy had had his throat cut; whilst according as the notches were on one side or on both sides, or the feather partly denuded, it was understood that the warrior had been the third, fourth, or fifth in order, to touch the dead body of a fallen foe. Of course in European warfare the slaughter is too indiscriminate for a man to claim such special distinctions.

There is yet another point on which it would be of interest to have some statistics for correct comparison between savage and civilized warfare, and that is, concerning the relative destructiveness and frequency of wars in the two conditions. As regards destructiveness, indeed, there can scarcely be any doubt when we recall the battle-fields of the Franco-German war, and then read of Fijian wars as having sometimes been perfectly bloodless. It is even probable that the frequency of war in the savage state has been much exaggerated. Bosman cautions us, after a description of negro warfare, against thinking that negroes are always at war. The first reason by which he accounts for the fact, that the people of Fida, though able to bring into the field 200,000 men, would scarcely dare attack 5000 armed negroes, is that "they are so strongly bent to trade and agriculture, that they *never think of war*." Besides the Esquimaux, who do not know what war means, there are the Papuan Arafuras, who live "in peace and brotherly love with one another," and the Todas in India, who are entirely destitute of military organisation. Hobbes, it is well known, conceived that a state of war was the natural primitive state of mankind; but the counter-theory of Montesquieu is at least as likely, that a state of peace is really the most primitive, or, as he expresses it, the first *natural law* of society. And there is this advantage in the theory of the French philosopher: that it divests war of that species of sanctity which attaches to everything claiming to appertain to the laws of nature or the natural state. There is always a tendency to think of nature as of something older and better than convention, so that from Hobbes' theory that the state of nature is a state of war, it has come to be thought

that a state of war is part of the unalterable conditions of existence, a condition with which it were foolish, nay, even profane, to quarrel. Hobbes' theory once discredited, the false reverence now paid to war as a primæval custom, as an instinct implanted in man at his creation, as one of the immutable laws of his being, will be paid to it no longer; and it will be regarded, as it only deserves to be regarded, as a purely optional misery, not, as it is so often spoken of, as a *necessary evil*.

But whatever the primitive state of mankind may have been, or the condition of some existent tribes as regards peace and war, it is certain that if we take savagery as a whole, its most universal attribute, its most conspicuous fault, is not so much its ignorance, its superstition, or its cruelty, as its love for war, its lust of blood, its incapacity for peace; and it is also a fact that it is in warfare more than anything else that there is most in common between civilization and savagery, and that the distinction between them most nearly disappears. In religion, in morals, in art, the difference between savage and civilized communities is so great and wide that many men indignantly repudiate all thought of any connection or community of origin between them; but in war and all that relates to it, the points of analogy between the two are conspicuous, palpable, striking. There are the same notions of the glory of war, the same belief in it as the only source of national prestige and national strength, the same hope from it of individual preferment, the same readiness to seize any pretext for resorting to it, the same foolish sentiment that it is mean to live without it. Even in its conduct the difference is rather one of weapons and tactics than of anything else; it has been shown that laws of war are not a monopoly of civilization, and it is possible that whatever advantage the latter has in this respect is compensated to some extent in savage life by the less frequent occurrence, and the less fatal character of their wars. For it is probable that their frequency has been much exaggerated, in order to enhance men's notions of the miseries of the heathen state.

A last question then remains. Civilization, ever advancing, has shaken off many of the superstitions, many of the cruelties, and much of the ignorance that it inherited from the times and thoughts of savagery; is there any reasonable ground for hope that it will ever shake off that which most clearly betrays the taint of its origin, that which is its strongest surviving link with barbarism, that which it acknowledges to be its highest reproach, and that which it would be its highest glory to put aside—namely, its pursuit and lust of war?

The opinion is already spreading fast that war, as a mode of settling disputes, is silly and savage; and the opinion only

needs to spread further for war between civilized nations to become a moral impossibility, irrespective of any international Treaty of Disarmament. Such a treaty, when it comes, will be but the seal of a change of custom preceded and prepared by a change of opinion. All that is wanted is a certain amount of human opinion and human will—of opinion, that quarrels may and should be settled peaceably; of will, that they shall be settled in no other way. Not more will is required than sufficed to put down the slave trade; nor is any stronger opinion needed than was enough for the extinction of duelling and torture. No exorbitant demands are made upon human nature as it is, no excessive claims upon our energies and intelligence. It is only by exaggerations of the difficulties, the usual refuge of apathy or ignorance, that the advent of an era of peace is any longer delayed. For wars to cease, it is only necessary that their cessation should be thought *in earnest* possible and desirable; and the arbitrament of the sword will no longer be thought of, when once another mode of arbitrament is honestly preferred. Till it is, no fundamental difference between savagery and civilization can be said to exist.

DISCUSSION.

The PRESIDENT said that while the weapons and methods of warfare had been carefully studied by Anthropologists, the present author regarded war from the point of view of ethics and politics. This subject, though treated of in modern works on anthropology, had perhaps not previously been brought before the Institute. The author of the paper had contributed to the problem interesting information, showing that even among very rude tribes war was not mere fighting without rule or restraint, but that on the contrary the practice of declarations of war was general, and other restrictions appeared which showed that the object sought was not merely for one tribe to injure another as much as possible, but to decide a quarrel by ordeal of war. The collection of facts as to the effect of military organisation on society was perhaps more complete than had been previously made.

Mr. SHUTE said he did not think that it was in times of primitive savagery that the methods of warfare were most free from conventional restrictions. It was rather when civilization of a sort had dissolved back into barbarism that the warrior felt himself emancipated from all scruples of the conventional conscience. He noticed that not only a solemn declaration of war, but even a short pause after the declaration and before the commencement of hostilities, was part of the conventional morality of some of the primitive Italian tribes. He could not believe much in arbitration as a method of solving pure international questions, but he thought that more was to be hoped from the fact that those who actually carried on the



war, and still more those who paid for it, had now-a-days so little to gain by it. It would hardly be worth the while of the average citizen of central Germany to spend his blood and treasure in order that the burghers of Mulhouse should send a representative to Berlin instead of to Paris.

MR. WORTHINGTON G. SMITH, F.I.S., exhibited a series of 60 palaeolithic implements, principally from the Valley of the Axe. Some of the specimens were unusually large and heavy, one broken implement (a butt-end) weighing more than $2\frac{1}{2}$ lbs. The Axe Valley implements were all made of chert, many presenting a large mass of the old crust of the chert on the butt; this crust so readily absorbs moisture, that after a short immersion in water some of the implements become nearly an ounce heavier in weight.

MR. SMITH also exhibited a fourth series of palaeolithic implements of flint, found in the Valley of the Thames at and near London. This exhibition brought the number of Thames implements found by Mr. Smith up to 43, exclusive of 12 large flakes trimmed to an implement-like form.

THE PRESIDENT said that living at the foot of the Black-down Hills, he had looked over great quantities of chert fragments, but without finding any implements. For the rude and heavy palaeolithic type of instruments, the specimens now exhibited showed the local chert to be a tolerable material, though quite unsuited to the finer flakes and arrow-heads of the neolithic age.

SQUEEZES of HAMATH INSCRIPTIONS.

By the Rev. DUNBAR HEATH.*

THESE "squeezes" come from Hamath and Carchemish, and though a geographical, social, or political account of these countries would perhaps be more interesting, the decipherment of their language is far more important, especially as Mr. Lowy has kindly come down to cross-examine me on my indentifications. Taking one small tablet alone, I had put the whole into English letters, and by grouping them properly certain roots appeared, each of which had formatives affixed or suffixed. By the simple plan of looking these words out in a dictionary, the language was shown to be evidently Semitic, and the

* Read November 25, 1879.

dialect very fair Chaldee. Take for instance the words Sa-khu-ku neginvati, "Play ye my Neginoth." We are familiar with the Hebrew word Neginoth at the head of several psalms in the authorised version, but "neginvati," is Chaldee. Sa-khu-ku is the imperative mood of the verb from which the Patriarch I-sak derived his name. The analysis is as follows:—

"Make songs. play ye my harmonies, that they may cause thee to cure." (This may be supposed to be the divine voice to the body of the Priesthood in the Temple.) "Thy fee is the gift of me, Sahidijah, from which (viz. from the fee) come Praises to his Gods in Iban." Since the above was in type, I have seen that it would be simpler to consider "my" harmonies to be the harmonies bought and paid for by me, Sahidijah.

With reference to this language and the manners and customs of the Hittites, the annexed illustration represents figures on some doorposts or lintels found at a ruinous town on the Euphrates. This has been immediately called Carchemish, but it may be Jerebis or Europus. The actual stone door-posts themselves are in excellent condition, though incomplete, and are visible to the public in the Oriental Department of the British Museum. It happens that some eight years ago the Institute was the first to lithograph the tablets found; it is now the first to publish an inscription divided into words and illustrated by an alphabet and a short but veritable Dictionary.

This work settles, or ought to settle, at once the fact that the language of the tablets is that which has been called Syro-Chaldaean or Aramaic. In the struggle for existence, this is the language which finally swallowed up all the Semitic dialects around it, including Hebrew, so that in the days of Christ, for instance, we have such phrases as "Talitha kumi" and "Eloi, Eloi, lama sabachthani," which are not Hebrew.

But to my mind the glimpse of the inner mind of the Hittites disclosed in these new discoveries is almost more interesting than the increased knowledge on the subject of their language. At any rate, in the following few remarks I will call attention more to the sort of things the Hittites did than to the language in which they spoke.

Let me then begin with the fact that no less than four out of the ten tablets already found are built up upon one and the same model, differing only in the names of the men who originally placed them in their places at Hamath. What we observe in all four is that they begin with a call for music, sacred music, because the cure of disease is distinctly stated to be the object sought to be attained by the music. The fee for the Holy Ceremony is then mentioned, as we should expect among a nation of merchants, and lastly, a liberality of sentiment is

shown which we have not even yet arrived at as a rule in our own day; for those who paid the musicians at Hamath did not do so in praise of the Gods of Hamath, but each in praise of his own God, whether in Iban or in Naruna, places still unknown.

It has been submitted to me that among all the great and wonderful civilizations lately rediscovered, it may be laid down as a rule that temples were built by monarchs, and that as I have found no king's name at Hamath, there must be an error somewhere in my alleged discoveries. In this very remark (it appears to me) lies a great deal of the interest with which I scan the rediscovery of Hittite civilization. Xenophon, who passed by the Chaldees in his famous retreat, tells us expressly they were *ελευθεροι*, free men, and as free men, is it so wonderful that a temple or fane, an Oracle, or a Beth-el should grow up step by step by individual votive offerings, four of which in the shape of stone records we have but now fallen upon? That individuals could gradually build up a fane, and should endow it with a system of lordly music, and that hundreds of such fanes should have probably existed is extremely natural in the nation of free men who for a thousand years safeguarded Europe from the cruel empires of the Great Asiatics, and who ultimately, under the name of Syrians, produced a liberal Saul of Tarsus to strengthen and establish a liberal religion out of Galilee.

In these few remarks it will be seen that I have introduced the word Bethel, and it is not without a purpose that I have done so. I believe that three at least of the engraved stones at Hamath belonged to a Beth-el, in the proper sense of the word, and, strange as it may seem, I can find no better description of the meaning of a Beth-el than by referring my readers to the First General Epistle of the Christian Apostle St. Peter. The "Strangers" to whom he wrote were scattered throughout "Pontus, Galatia, Cappadocia, Asia and Bithynia." These provinces are the very ones subject of old to more or less of Hittite influence which would be bordered by that of Armenia on the east, and substantially Greek civilization on the west. In the second chapter the very idea of the Hittite Beth-el is described as a stone erection, divine in its totality, and composed of individual "lively stones, built up a Spiritual House." But however inviting this subject may be and is, I can but point it out on this occasion.

The scene now changes to a fifth stone (which I call B, the four others being A₁, A₂, A₃, and A₄). I have published nothing yet about it anywhere, and I think I can hardly have mentioned it in conversation. It is unfortunately imperfect here and there, and I do not profess accuracy in the translation. I think it was

probably erected near a large receptacle for oil at the entrance to a town called apparently Lebu, and contained a direction to strangers as to paying the proper fees, etc., etc. The "Custom of the Town of Lebu," it says, was to "collect oil for the Goddess of Oil." "Your libation is to the Goddess of Honey," and "the libation is an obedience to the Hyk" or chief magistrate of a place whose name is given.

I do not doubt that by many this alleged collection of oil and honey may be considered passing strange. Strange or not, however, the substantial proof of it may be found by any one who has a moderate knowledge of Hebrew. Let me ask such a one to carry his eye along my dictionary till he finds the words oil and honey. He will see them given as Mesakh and Dibash. Let him turn to an ordinary Hebrew lexicon—he will find the same. Let him do the same with other words. Again he will find that each introduced hieroglyphic is what it ought to be and where it ought to be. For instance, take the word basket. The Hebrew for this is Dud, and he will find the hieroglyphic D in Dud is the same as in Dibash. We need not trouble ourselves about the rules of logic, for common sense will tell us that the principle of the transliteration here pointed out is sufficient for its purpose.

As to the ruined city from which the lintels have been brought to England, everybody at once called it Carchemish; but for this nomenclature I do not remember that I have ever seen any proof or reason given. Quite lately, Professor Sachau, a Danish professor, has passed a few days with our Consul, Henderson, at the ruins, and gives it as a fact that the place is at present called Jeribis by the natives, and that a Macedonian colony once inhabited the site under the name of Europus. In favour of this latter view, you will recognise the image of a raven in your plate, and the Arabic for a raven is Iareb. This word Iareb, or Europus, also means the west, and Erebus means darkness. Unfortunately, this raven on the door-post has two signs preceding it, neither of which I know. The context shows the three signs together to be the name or title of a person, and there is reason to suppose that he was the high-priest of the city—the city, I should suppose, of Iareb; and that the priestly figure found by George Smith was his statue. The writing at the back of this figure is a record of the mourning ceremonies at his justification or perfectioning or funeral. The writing on this figure I call E and your lintel posts I call F. I have said nothing of C and D, as they are incomplete and contain several letters still unknown.

I am perfectly open to any arguments in favour of the famous old Carchemish; but Chemosh has not supplied his votaries

with any as yet. And now, even the bull that carried off Europa to Crete seems inclined to put in an appearance, for this inscription F seems to point to something very like the worship of Europa, whose legendary journey over the salt sea waves was doubtless a symbol of the introduction into Europe of the Hittite merchandise and civilization from Europus on the Euphrates. If this be so, the festival celebrating this would probably be held once a year at Jerebis. The games seem to have included wrestling matches (or bull-baits) for the furtherance of which the high priest gave a piece of ground without charge.

Unfortunately, this F is again only a fragment, and there are unknown letters in it. The first post (at the left of the right-hand post) begins in the middle of a sentence; the music mentioned, though still probably of a sacred kind, is of a stronger nature, more fitted for bull-baiting than that which Sahidjah paid for. "Clashings of Negrinoth; because we have brought back the bull which now is" (this reminds us of the sacred Egyptian apis) "in order that Europus, here, your glory, might see the wrestling he gives thee, gratis, a ——." Upon the other post, beginning from the ground and from the right-hand of the left post, we read: "Here passes the boundary of the possessions of the cow (or bull) whose Nazarenes" (or priests). . . . I am so uncertain about the rest, that I think it better to wait for fresh material, which is known to be on the road to the British Museum. To students I bid farewell, by asking them to take the very last four letters in the plate F, and they will read the word i.r.b.z., preceded by what is thought to be the sign of a city. In other words, they will recognise "the City of Jerebiz."

DISCUSSION.

The Rev. A. Löwy observed that so long as no principle was laid down and explained as to the system by which the characters had been transliterated, it would be impossible to express an opinion on the value of the proposed reading. The first word as read in Mr. Heath's transliteration, stated to be a pronoun, was not connected with any Semitic language. Several words which followed had forms approximating the Hebrew and the Aramaic idioms. Among the curiosities of the inscriptions as deciphered by Mr. Heath was the occurrence of "yah" (Jehovah) in the same phrase in which the "Baalim" were mentioned. This combination, if correct, would make the adorers of *Jehovah* worshippers of *Baal*.

Mr. BERTIN: Both the Institute and the learned world must be thankful to Mr. Dunbar Heath for having taken up so interesting and important a subject. The lecturer seems to have been through

careful searching and reconstruction able to come to the reading of those inscriptions; but as we have not been through the same study and labour, we must only admit the reading of such and such character on his evidence, so to say, and that is admitting at first what is to be proved. For this reason I should have liked Mr. Dunbar Heath to initiate us in his system of study or indicate the steps he took. The result he has attained is striking, but it would have much more value if we knew how he came by it; we should be able to say the inscription *means that*; now we can only say Mr. Dunbar Heath says it means that. I disagree with Mr. Löwy, and agree with the lecturer that one word which is scarcely used in any dialogue may be of a great use in another; thus we have in Hebrew the word *abel*, which appears only as the name of Adam's son, and in one compound word, though in Assyrian, *abal* (son) is one of the words mostly used. I also agree that a man named from one god may make offering to another god; that appears constantly in the cuneiform inscriptions. The name of the God Jo (form for Jehovah, Mr. Löwy tells us) appears in other Semitic tribes besides the Jews, and we have it also in Assyrian; the Jews seem to have adopted it for their national God, but I cannot see yet for what reason.

Mr. HYDE CLARKE confirmed the statement of Mr. Heath that the investigations of Hamath, Khita, or Hittite had been begun in that room by the exhibition of Captain Burton, and by his own immediate determination that they were syllabic characters, and not pictorial delineations, as some had supposed, nor cattle-marks, as proposed by Captain Burton. The next step for which they were indebted to Mr. Heath was the full establishment of this by the publication of parallel passages. He (the Chairman) had pointed out the Khita marks in Loftus' plate, and had proposed the extension of the Khita area, and determined the philological affinities of the language. His statement had been confirmed by the discoveries of the late G. Smith with regard to Carchemish, and made definite by those of Professor Sayce, who had identified the Khita characters on the Pseudo-Sesostris, besides pointing them out in the works of Texier and G. Perrot as to Central Asia Minor, and of the Rev. Dr. Badger as to Chaldea. The existence of the character in Lydia and Phrygia was now beyond question, and those languages were by him (the Chairman) treated as of the same affinities as the Akkad, but were nearly allied to the Etruscan. The Ivreez inscription was another known locality. He (the Chairman) had pointed out the westward passage of || (=son from cuneiform and Hamath to the Libyan. Professor Sayce was inclined to attribute the Cypriote to the same circle of distribution. These points were now quite clear, that the Khita had a full syllabary, and that it belonged to the same class as all the others of early age, itself most probably representing an archaic form. He had already at Dublin illustrated the community of cuneiform and Chinese, and their origination from an earlier character. To this class too he assimilated the Maya. What the language was of any particular Khita inscription,

it was impossible to tell. It must, however, be taken for granted that earlier inscriptions would be what is called Turanian, and the later Semitic. The Biblical Archæological Society were taking up the scroll, and would most probably produce a fount of type. It was beyond question that the Khita inscriptions would open up a new branch of learning and history of interest comparable with the other schools of palæography. In the absence of bilingual inscriptions, progress is stopped, but he could not concur in the present doctrines of Mr. Heath. † and other characters are found widely distributed, but in each syllabary they have different appropriations.

JANUARY 13TH, 1880.

JOHN EVANS, Esq., D.C.L., F.R.S., *Vice-President, in the Chair* ;
afterwards M. J. WALHOUSE, Esq.

The minutes of the last meeting were read and confirmed.

The following presents were announced, and thanks voted to the respective donors :—

FOR THE LIBRARY.

From the EDITOR.—*Revue Scientifique*, Nos. 24-28, 1879.

From the SOCIETY.—*Journal of the Society of Arts*, Nos. 1412-16, 1879.

From the EDITOR.—“*Nature*,” Nos. 528-532, 1879.

From the EDITOR.—“*Athenæum*,” No. 624.

From the SOCIETY.—*Proceedings of the Royal Society*, No. 198.

From the EDITOR.—*Revue Internationale des Sciences*, No. 12, 1879.

From Dr. PAUL BROCA.—*Instructions crâniologiques et crâniométriques, de la Société d'Anthropologie de Paris*.

From Dr. PAUL BROCA.—*Instructions Générales pour les Recherches Anthropologiques*, 2nd Edition.

From the AUTHOR.—*Puerto Rico*. By C. T. Bidwell.

From the SOCIETY.—*Mittheilungen der Anthropologischen Gesellschaft in Wien*. Band IX, Nos. 7-8, 1879.

From J. BARNARD DAVIS, Esq., M.D.—*Strumenti in Pietra delle Provincie Calabresi*. Memoria di Giustiniano Nicolucci.

From the AUTHOR.—*Genesis I, II; an Essay on the Bible Narrative of Creation*. By Augustus R. Grote, A.M.

- From the AUTHOR.—Address of Prof. Augustus R. Grote, Vice-President, Section B, before the American Association for the Advancement of Science, at the St. Louis Meeting, August, 1878.
- From the SOCIETY.—Verhandelingen van het Bataviaasch Genootschap van Kunsten en Wetenschappen. Deel. XL. Tijdschrift voor Indische Taal-, Land-en Volkenkunde. D. XXV. Af. 3. Notulen van de Algemeene en Bestuurs-vergaderingen. Deel. 17 Af. 1.
- From the AUTHOR.—Ueber die Höhlenfunde in der Wildscheuer und dem Wildhaus bei Steeten an der Lahn. von Dr. H. Schaaffhausen.
- From the EDITOR.—Correspondenz Blatt. Nos. 9-11, 1879.
- From the SOCIETY.—Proceedings of the Royal Geographical Society. Vol. II, No. 1.
- From Messrs. R. CLARKE and Co.—The Mound Builders. By J. P. McLean.
- From the AUTHOR.—Der Steisshaarwirbel (vertex coccygeus), die Steissbeinglaze (glabella coccygea) und das Steissbeingrübchen (foveola coccygea), wahrscheinliche Ueberbleibsel embryonaler Formen, in der Steissbeingegend beim ungeborenen, neugeborenen und erwachsenen Menschen. Von A. Ecker.
- From the AUTHOR.—Kraniologische Untersuchungen. Von Dr. Emil Schmidt in Essen a.d. Ruhr.
- From the SOCIETY.—Bulletin de la Société de Borda à Dax, Part 4, 1879.
- From Prof. F. V. HAYDEN.—Bulletin of the United States Geological and Geographical Survey. Vol. V. Nos. 2 and 3.
- From the AUTHOR.—On the Classification of Languages. By Gustav Oppert, Ph.Dr.

The following paper was read :—

THE CAGOTS. By D. HACK TUKE, M.D., F.R.C.P.

SCATTERED through the French and Spanish provinces, bordering on the Pyrenees, as also in Brittany, certain unfortunate people have attracted attention as a scientific problem since the 16th century, at which period they passed under various names, Cagots, Gahets, Gafets, and Agotacs in France ; Agotes or Gafos in Spain ; and Cacous in Brittany.

Having last year visited the French border of the Pyrenees and made some inquiry and investigation into the various hypotheses regarding the origin of the Cagots, I shall endeavour to state that which appears to me to be the most probable, glancing first at their history.

The earliest date at which they are mentioned, though under a different term, namely, Christians or Christianos, is 1288. For reasons into which it is the chief object of this paper to inquire, they were shunned and hated. In 1460 the States of Bearn demanded some restrictive legislation of the King of France respecting them. There were consigned to a separate quarter in any town where they lived—a *cagoterie*—and dwelt in wretched huts in the country distinct from the neighbouring village. They entered the church by a side door when they lived, and when they died they were buried apart from others. In church a rail separated them from the rest of the congregation, a receptacle for holy water was reserved for their exclusive use, and the wafer was either not permitted them, or it was placed at the end of a stick. It was not until the time of the French Revolution that their unhappy lot was greatly ameliorated, and even now I have found their descendants regarded with a certain amount of contempt. The side door in the church can still be recognised by the traveller who, like myself, visits the districts to which I have referred; a separate basin for holy water may still be seen, and other indications survive, pointing to the isolation—the ostracism—they laboured under, and the disgust they excited.

If any one desirous of obtaining information about these people were to consult Larousse's "*Grand Dictionnaire Universel du Dix-Neuvième Siècle*," published in Paris a few years ago, he would find it stated that "we still find in the midst of the Pyrenees, as a remnant of the old stigma which rested on the Cagots, a certain number of families belonging to the race, hitherto regarded as infamous and accursed, who are still living under the stroke of a kind of blight, imposed not by law, but by public opinion, the nature of which seems to be complex. In short, the members of these families are still the subject of a physical degeneration, the result of long ages of oppression and of marriages always contracted among themselves. Goitre is their distinctive mark, and so to speak, the seal of their reprobation; and cretinism is the most frequent result thereof."

Again, two physicians on the Continent, MM. Ozanam and Fabre de Meirannes, have represented cagotism and cretinism as identical; while M. Littré, in 1872, defines the Cagots as "a people of the Pyrenees affected with a kind of cretinism"; and in our own country Drs. Guy and Ferrier, in their "*Forensic Medicine*," published in 1875, describe the Cagots as "afflicted with extreme bodily deformity and degeneracy, and with deficiency of intellect."

How far these statements are borne out by the facts will be seen as we proceed.

As regards the Cagots being a distinct race, the most prevalent

idea has been that they were originally Goths, the word Cagot being supposed to mean "Dog of a Goth" (*Canis* or *Caas*, dog). Plausible as is this opinion, there appears to be no foundation for it beyond tradition, and the etymology can be replaced, according to M. de Rochas, by one to which I will refer presently, and which certainly seems to me to receive much support from a medical point of view. Assuredly I have been unable to obtain any evidence which marks the Cagots out as a people distinct from the surrounding inhabitants.

As to the assertion that the Cagots are distinguished by goitre, and that cretinism is their general condition, I have looked in vain for evidences of it, unless, of course, they have been subjected to the same maleficent influences as those are who present these deformities, and many have no doubt suffered in this way. The goitrous and cretinous persons whom I have examined in the valleys of the Pyrenees are absolutely distinct from the Cagots. In short, Cagots and Cretins have been, in a most remarkable manner, completely confounded together, and this, as we have seen, even by continental physicians.

When in the Hautes-Pyrénées, I made from Bagnères de Bigorre an excursion to Aste and to Campan, in both of which places there were formerly *cagoteries*. In the former I saw in the church a distinct portion, formerly entered by a separate door, near which was a *bénitier*, all of which are, the curé informed me, regarded by the inhabitants as having been set apart for the Cagots. In the other town, Campan, I found more certain evidence of a *cagoterie*, for at the foot of the mountain, and separated from the town by the river Adour, there remains what is known as the "Quartier des Cagots," in which very shortly before I visited it, the last of the Cagots in this district died. She was a woman, and had attained the age of 92. The bridge over which I passed to reach this *cagoterie* is called the Pont des Cagots. Only a few miserable cottages remain. Some were in ruins. On a stone, which had once been over the door, was the date 1665. In one house into which we entered was a deserted room. I was told by the notary who accompanied me that the dwellers had gradually died out; that they had been chiefly engaged in weaving, and that they were looked down upon by the inhabitants on the other side of the river. We saw some half dozen people in the houses, but the notary said they were not Cagots. They were dark.

I should say that my companion stated that the former dwellers were light-complexioned, with blue eyes and light hair—an exception to the general fact that the Cagots do not differ from the neighbouring population.

In the town itself, he showed me the church, pointing out a

separate portion of the building formerly set apart for the Cagots, also a separate door and an isolated *bénitier*. In the churchyard there is a part railed off from the rest of the ground, and my informant said he had no doubt it had been used by the Cagots.

Neither the notary, nor any one with whom I conversed, had any idea of these people having been goitrous or cretinous. Conversely, I saw in the same day numerous Cretins in other districts, but no one on the spot dreamed of confounding them with the Cagots.

The notary no doubt well expressed the feeling which still lingers in Campan, when he said there was just a *soupçon* of Cagotism remaining.

Perhaps the best opportunity of testing the truth of some of the statements made about the Cagots occurs at Chubitoa, near St. Jean Pied de Port, in the Basses Pyrenées, where I found some two hundred persons living in a small village, separated from Anhaux by a stream, and quite isolated from the general community. The Basque word (not in the dictionary) by which they are called is Agotac, a term of reproach, not adopted by themselves, and they are exceedingly angry if so called. When I asked the driver of the mail-cart from St. Jean to Bayonne what he thought of them, he shrugged his shoulders and called them *Canaille de gens*. Accompanied by Dr. Darrieux, of St. Jean Pied de Port, I was able to enter freely into their houses and examine them. They are chiefly weavers, blacksmiths, and joiners, and own no land. I could find no indication that they were a different race from the surrounding Basque population. They speak the same language, and they are equally strict Roman Catholics. They go to church at Anhaux, but as recently as 1842 they occupied a separate place during the service. I may add that once a year, on Rogation-day, the inhabitants of these two villages join in a procession on a neighbouring hill. Until recently disputes arose between them, which have been only terminated by the gendarmerie adopting the wise precaution of joining the procession.

I did not find a single inhabitant of Chubitoa affected with goitre, and none of them were Cretins.

Most have heard the expression "a Cagot ear"—one attached directly to the cheek inferiorly and without a pendulous lobule. I only observed one or two, and such a form of ear is by no means uncommon in France or England in persons whom no one suspects of being Cagots.

The inhabitants have mostly dark hair and grey eyes, some dark. They are of medium height. Here I may remark that although dark hair and light eyes are often observed together in

the Basques, there appear to be among the general population two types of this race, one fair, with light or chestnut hair, blue or grey eyes, and with skulls apparently more dolichocephalic than in the other type, and they are on the whole taller; another with dark hair and eyes, but often florid and with brachycephalic skulls. To these may be added a third type, persons with light brown hair and eyes, with smaller features and generally slighter frames, but this type is not so well marked as the other two. Of course the more isolated the locality is the less is the probability of admixture, and in proportion as this isolation occurs, does the first-mentioned type prevail, though probably it is always in a minority in the whole population in a given district. There are postero-dolichocephalic as well as antero-dolichocephalic heads.*

It is rare to find so isolated a community of the descendants of the Cagots as this. I believe there are not more than three or four remaining in France. In other instances they have become mixed with the population. It is so at Urrugne, a village near St. Jean de Luz, where I was fortunate in being accompanied by a physician, Dr. Guilbeau, who has studied the Cagot question and expressed his opinions in print. We went to the fine old church of the 11th or 12th century, where the service was going on in Basque and Latin, and he pointed out to me the walled-up doorway on the north side, through which the Cagots were formerly obliged to enter. There is not now any distinct *bénitier* in this church, but Dr. Guilbeau (who is a native of Urrugne) remembers one in existence, when he was a boy, which was regarded as that formerly restricted to the use of the Cagots. He says that a prejudice still exists against the Cagots although mixing with others, and that time alone can eradicate so deeply rooted a hatred. He calls them Agoths (another form of Agotac) and regards their origin as still lost in an impenetrable mystery, or to use his own word "chaos," and as likely to be so for long, but he inclines to the opinion that they are the descendants of certain heretics. The Basques, whether Spanish or French, are profoundly Catholic and, urged on by the clergy, who, in spite of royal ordinances have always been opposed to the restoration of their civil rights, would, he believes, have readily, in days gone by, carried out the slightest wish of the Inquisition. Dr. Guilbeau took great pains to show the distinction between the Agoths and the Cast-Agoths, or

* Different types among the Basques no doubt account for the fact that while Retzius said they were brachycephalic, Broca declared he was in error. Achille Foville regards them as dolichocephalic, the occipital region being especially developed; the frontal less spacious than with the Parisians. ("Annales Med. Psych. 1867.")

Gitnaes, or Gitanos (gipsies) who are commonly called in France, Bohemians. The former are peaceable and moulded in the same civilization as the Basques; the latter, for the most part, lead a nomadic life and are repelled by the inhabitants as thieves and vagabonds, though some lead quite an inoffensive one, like some I saw dwelling at Ciboure, a suburb of St. Jean de Luz. These are mostly fishermen. They are called *Cascarrots*, a corruption, Dr. Guilbeau considers, of Cast-Agoth. He regards them as of African origin. Some of them were very dark and handsome, but not so striking as our gipsies.

Here I must remark that nothing can better illustrate the difficulty of solving the question of the origin of this strange prejudice against a class of people who present no external signs of peculiarity, than the following fact. Dr. Guilbeau inclines to regard the Cagots as originally heretics, while the Rev. W. Webster, the English clergyman residing in the same town (St. Jean de Luz), who has also studied the question for years, is of a decidedly different opinion. Mr. Webster believes that the conclusion arrived at by M. de Rochas in his remarkable work on the Cagots, published in 1876, is the true one, and, as I have said, it seems to me that it is extremely probable. This opinion is, as most of you are aware, that the Cagots were persons at one time regarded as tainted with leprosy, and were therefore obliged to live separate from others, the original cause being now long forgotten, but the prejudice outlives the reason. An examination of those who are descended from the Cagots does not, I need hardly say, help to determine the question, except so far as it tends to render other explanations improbable, and leaves us at liberty to adopt one which is supported by their past history and the etymology.

That the Cagots were regarded from a very early period as in some way allied to, if not actually, lepers, is borne out by a large amount of evidence which it would occupy too much time to adduce. It was, there can be little doubt, the dread of contagion which caused every one to shun them, and which obliged them to wear on their dress some distinctive mark, as the foot of a duck. And yet they were to some extent distinguished from lepers; they were not in lazaret-houses, and some old authors have attempted to point out wherein their symptoms differed from those of true leprosy.

Happily, we have an actual description of Cagots from the pen of a well-known medical writer in 1561. Ambroise Paré, after describing tubercular leprosy, says: "Some lepers have the face beautiful and the skin polished and smooth, giving no indication of leprosy. Such are the white lepers called Caquots, Capots, and Cagots, who are in Lower Brittany, and near

Bordeaux in Guienne, where they are called Gahets [or Gafets], in whose appearance none or few of the signs of leprosy are found."

I am fortunate in having obtained on this passage the opinion of so good a dermatologist as Mr. Jonathan Hutchinson, who considers that Ambroise Paré is here describing leucoderma. It would seem, then, that some of the Cagots suffered from the simple absence of pigmentation which characterises leucoderma. A physician of Montpellier, M. Joubert, wrote in 1563 a very similar description to that of Paré,* but he adds as a symptom, "swelling of the face," which is an indication of leprosy, and not of leucoderma; so either this was really a variety of true leprosy, or (what is more probable) he confounded the symptoms he had witnessed in true leprosy and in leucoderma.

If, as is likely, some of the Cagots laboured under a variety of true leprosy as well as under leucoderma, that variety was "white leprosy," and it is this, the "anæsthetic" form, upon which M. de Rochas dwells. He does not clearly recognise leucoderma as distinct from white leprosy, and it appears that the two affections are frequently confounded together in the East at the present day. It is a striking confirmation of the theory of leprosy, that the Portuguese apply one term *Gaferia* to the anæsthetic variety (elephantiasis anæsthetica) and that one of the names of the Cagots employed by the Spaniards is *Gafos*. And this brings us to the question of etymology, the bearing of which on the origin of the Cagots, M. de Rochas has worked out with so much ingenuity, and as it would seem with complete success.

Taking the word Cagot, he finds that the Celto-Breton word† *Cacodd* signified leprous, and it is easy to see how readily it would assume the form of Cacous (as it is in Brittany actually applied to these people), and the French *Cagot*. Cagots were also called Mézèges, and as *Mézeau* is French for leprous,

* "There are," he says, "men who present a general *leucé* (vitiligo) and are commonly called Cagots and white lepers. For their true malady is not elephantiasis, properly so called. . . . it is no longer the lepra of the Greeks. . . . It is in the lymph that cagotism (capoterie) has its source. Everything indicates it: the uniformly white colour (almost like snow) of the skin; the absence of itching, the smooth and polished surface of the body; lastly, the swelling of the face. The sole thing which denotes that their health is not perfect is the smell of their breath, which is owing to the facility with which the lymph is corrupted. It is not contagious, as elephantiasis is, but is hereditary. . . . It is with reason that they are forbidden to marry with others."

† M. Bullet, in his "Dict. Celtique" recognises the connection between *Cacodd* and *Cacous*, both signifying leprous. It is not an ingenious idea of M. de Rochas. *Cacoa* signifies a hook. M. Bullet, however, under *Cacou*, refers the reader to *Cacca* ("to send away"), and says, "On chassoit les lepreux de la société."

there is further evidence of the etymology being as stated by M. de Rochas. He has also found that in the old laws of Navarre, the "Romance of the Cid," and in the "Dictionary of the Spanish Academy," the signification of leprosy is attached to "*gajo*,"* the root of the word being "*gafa*," a hook, which was applied to the contraction of the hand or fingers often witnessed in leprosy, especially the anæsthetic variety.

I think, then, that combining the medical and etymological evidence, the descent of the Cagots from the Goths is much less probable than from those affected in the Middle Ages with a particular form of leprosy, or a condition which resembled it. It is true that we find two physicians, MM. Noques and Perrey, examining a number of these outcasts in 1611, and reporting that they were like other men; but this is explicable on the supposition that leprosy and leucoderma had died out in these cases. How tenaciously the stigma clung to them is shown by the fact that half a century afterwards, when Louis XIV. issued an edict favourable to them, based on another medical examination, the people resolutely refused to associate with them.

That they should have been called "Chrestians" is accounted for by M. de Rochas by the circumstance that lepers were actually called *Pauperes Christi* (as they were also called *Pauperes St. Lazari*). So Cretins were called Christians, and I do not doubt that this is the reason why Cagots and Cretins have been so often confounded together.

Recurring for a moment to one definition of a Cagot given in the French cyclopædia of Larousse, we may safely assert that it contains no less than three errors, in saying that the Cagots are a distinct race, that goitre is their distinctive mark, and that cretinism is the most frequent result of their isolation. It would probably call to mind the story of Buffon and the Crab. Some one had defined it as a fish; as red in colour; and as walking backwards. Buffon's opinion being asked of the definition, he replied it was correct, with three exceptions: the crab was not a fish; it was not red till boiled; and it did not walk backwards. In all other respects the definition was unexceptionable!

In conclusion, while conscious of the difficulties which surround the attempt to trace the origin of the Cagots, I would sum up the opinions I am myself disposed to adopt as follows:—

1st. The Cagots are not the descendants of the Goths; they are not a distinct race, but a despised class among the people of the country in which they live.

2nd. They are not more subject to goitre or to cretinism than the inhabitants in their vicinity; in short, cagotism and cretinism are in no way allied.

* French syn. *gaffe*; English, *gaff*

3rd. The present representatives of the Cagots are now recognised by tradition, and not by their features, and are not distinguished by any peculiar mental or physical disorder, except when residing in an unhealthy locality.

4th. Although nothing like leprosy or leucoderma has for long affected the Cagots, and no one on the spot regards them in this light, there is evidence to show that they were originally, in some instances, lepers labouring under a particular variety of leprosy, and in others persons affected with leucoderma; the form of the affection accounting for their being regarded as in some respects different from ordinary lepers, though shunned in the same way.

5th. Many were no doubt falsely suspected of leprosy, in consequence of some slight skin affection. Others, again, were members of families in whom leprosy had died out—descendants of the lepers.

DISCUSSION.

Mr. EVANS agreed in the author's views, which also accorded with those of several French Anthropologists. He cited the existence of Lepers' Chapels in England, and notably one at St. Stephen's, near St. Alban's. With regard to the derivation of the name of Cagot, he observed that the term did not appear to date back much beyond the 13th century, and could therefore hardly be an original Breton word. Its earliest form, Cacod, suggested the possibility of its being a derivative from some Greek medical term, compounded from *κακός*, and the evil smell mentioned by the author as a characteristic of leucoderma pointed to *κακώδης* as a possible root. He made this suggestion doubtingly, but it might be worth consideration.

Dr. C. CLAPHAM: I look upon Dr. Hack Tuke's derivation of the word Cagot as extremely probable. As regards the prevalence of leprosy in Europe I may say that I have seen numerous cases of it in Norway, where special hospitals are provided for its treatment. Leprosy must not, however, be confounded with elephantiasis arabum (some photographs of which I see on the table) which consists in an immense thickening and hypertrophy of the true skin, sometimes involving underlying tissues and which at the hands of Mr. Bryant and other surgeons has been successfully treated by ligature of the main artery supplying the limb affected.

Mr. WALHOUSE: With respect to the side doors by which only in the Middle Ages lepers were admitted into churches, I believe some are still to be seen in several parts of England, as for instance in the very ancient church of Worth, near Swanage, in Dorsetshire, in the wall of which there is a doorway believed to date from Saxon times, so low that all who entered by it must bend their head; it is still known as the lepers' door. In India the disease

known as leucoderma is not uncommon: the patches of white are whiter than on European skin. Persons affected by it are avoided and regarded with disgust, and on death their bodies are not buried, as otherwise it is popularly believed drought or pestilence would be the result. When the disease appears at birth the infants are probably in most cases abandoned; leprosy does not seem to prevent those affected in after-life from reaching old age. In Southern India elephantiasis is most frequent on the western or Malabar coast, indeed it is commonly called the Malabar leg. People affected are nevertheless able to walk with considerable activity. I never remember seeing it in *both* legs, as in the photograph exhibited, nor, though Mussulmans form a considerable proportion of the population, did I ever see one affected by elephantiasis; it does not seem to be hereditary, nor, in its earlier stages at least, to affect health.

In the absence of the author, the following paper was read by the Director:—

NOTES on the JÍVAROS and CANELOS INDIANS.

By ALFRED SIMSON, Esq., F.R.G.S.*

THE tribe or family of the Jívaros is a large one, and one of the most distinguished, independent, and warlike in South America. They alike withstood the attacks of the Jucas and the Spaniards, burning the once famed cities of Logroño and Mendoza, and massacring all the male inhabitants who did not succeed in making their escape; and even to this day they maintain the most thorough independence. The missions at Macas and Gualaquiza have as yet produced no practical results, nor obtained any authority over the Indians. A Jesuit padre, who had resided three years at Gualaquiza amongst them, informed me that he had found it impossible to make any progress with them; and more than once his life was personally threatened. During these three years twenty nine whites (*i.e.*, half-caste traders) were killed in the neighbourhood of Gualaquiza.

The Jívaros speak a language of their own, Jívaro, and occupy the country generally from the Upper Pastassa to the Santiago, both rivers included, down to the Pongo de Mauseriche, on the Marañon. Most of those, however, at Pintuc understand and speak Quíchua.

* These notes were chiefly taken during a very short stay at a Jívaro Settlement on the borders of the River Pintuc (or Pindo), one of the tributaries on the left bank of the Upper Pastassa, in Ecuador, and refer mainly to that portion of the tribe inhabiting this region.

Their houses are large and built of "chonta" or "tarapoto" palms, split in two and standing vertically in the ground, close to each other, like a stockade; the principal stakes for supporting the roof being entire stems of the same palms. The roof is composed of rafters of bamboo, and thatched with interwoven palm-leaves, principally "yarina." The ground-plan of the house is shaped like a bagatelle board, square in front and round at the back, with doors at both ends.

The dwellings are very spacious inside; and the even plaiting of the high pointed roof thatch gives the ceiling a pretty and finished aspect. Several families live together in one house, each in its special corner or portion, where it has its separate fire; the earthen pots and other cooking utensils being stored on a sort of tray of split bamboo suspended from above. The way the fires are maintained is very ingenious: three large logs, about one to one-and-a-half feet in diameter and ten to twelve feet long, are placed with their points converging to a centre, at equal angles; and on the approximated inner ends the pot is stood. As the logs are consumed, the fire is fed merely by pushing them a little further in towards the centre; and if a stronger fire is required, smaller wood is thrown on the always red-hot and smouldering ends and fanned for a few moments with a fan of plaited grass.

The Jívaros are hospitable; but are, like most others of their race (and perhaps ours too), very fond of giving little so that they may receive more. However, a traveller, immediately he arrives, is always offered refreshment in the shape of boiled yuca, plantain, or whatever may be cooking, and the never-failing "chica," which stands about in every house in very large earthen pots of the "lotah" shape.

This chief sustenance of the Indian of these parts is made of the cassava root (yuca) boiled, and then partly chewed by the women, and partly mashed, after which it stands to ferment, on the third day becoming a little sharp in taste, which quality increases as the fermentation proceeds. Its consistency and appearance are much like mashed potatoes; and to prepare it for drinking a couple of ladlefuls (the hand is the ladle) are taken and worked and kneaded in a calabash of water, until well mixed: then all the coarser fibre, which floats on the surface, is removed with a fork (the digital one supplied by Nature), and the refreshing and sustaining beverage is in condition for drinking.

Polygamy is frequently met with among the Jívaros, but I have not heard of wives being exchanged, as the late Professor Orton, in his work on these territories, says is the case. On the contrary, this tribe—and, I am authoritatively informed, also the

other hordes observe the same practice—is of all Amazonian Indians probably the most jealous of its women; and very frequently not only are these not allowed to talk to strangers, but, with Oriental exclusiveness, not even to show themselves, a custom remarkably opposed to the habits of the Záparos, Cotos, Canelos, Oregones of the Putumayo, and Nilsayas of the Japurá. At Pintuc it was notorious that an old Jívaro named Huilijinda, who lived close by on the banks of the Pastassa, killed one of the six wives he possessed, for inconstancy.

The Pintuc Indians do not come under the Spanish denomination of “bravos;” they offer no violence to strangers of gentle purpose, but they ally with their half-brothers, the Canelos and Sarayacu Indians against the more aggressive Jívaros on the right bank of the Pastassa, and near the Morona, or Paute. They have a most perfect and finished method of scalping, by which the victim’s head is reduced to the size of a moderately large orange, maintaining tolerably well all the features. Only the lips, point of the nose, and all the thicker fleshy portions, of course acquire too much prominence. To produce these ghastly objects, the skin is cut round the base of the neck, and the entire covering of the skull removed in one piece. This is then dried gradually by means of hot stones placed inside it, until the boneless head shrinks to the required size. They also wear their slain enemies’ hair in long plaits round the waist.

Their arms are the spear of chouta, sometimes furnished with an iron head, and “bodoquera,” or blow-gun, for smaller game and birds. Some use shields.

The Jívaros practise a system of telegraphy, which has at all times been very dangerous to their adversaries in war, by giving strokes on the “Tunduli,” a large drum, which is heard from house to house, and passed on from hill to hill. The houses are all over their territories at convenient distances for the purpose; and in this manner very varied information is conveyed in a few moments to all the families of hordes dispersed over a large extent of country. This was the greatest danger the Spaniards had to contend with, and is still a main source of protection to these Indians, as they can rouse large numbers at a moment’s notice, and sound the alarm through entire hordes.

They are regular workers, and do not pass the whole day in idleness like many others of their race. They issue forth to hunt, work in their plantations, build canoes, attend to pig breeding, etc., regularly every day; returning to the house generally early in the afternoon to enjoy repose in the lighter occupations of scraping lances or darts for the “bodoquera,” making combs, feather ornaments, etc., whilst the women, who sometimes go out to work with them, cook and prepare the chicha

mass—their standard alimentation, and during their journeys the only one, being convenient and light to carry wrapped up in plantain leaves.

Amongst the Gualaquiza Jívaros, whom I had no opportunity of visiting, however, great festivities are held when a child is, at three or four years of age, initiated into the art and mysteries of smoking.* All the family is gathered together; and the eldest member then makes an oration in which he especially dwells upon the valour and glorious example to be witnessed in the lives of the child's ancestors and actual grown-up relations, the number of enemies they have slain, and so forth. The hope is then expressed that the representative of the new generation in the family may follow these meritorious footsteps, and after the manner of his forefathers prove himself a brave warrior. The address delivered, the pipe is then handed to the poor little fellow; and after he has taken a few whiffs, all the elders puff seriously in turn, and then wind up the proceedings by disporting themselves in chicha drinking, in celebration of the momentous event.

The "couvade" is rife among the Jívaros; and at the birth of a child, the mother has to undergo all her parturient troubles outside the house, exposed to the elements, whilst the husband quietly reclines in the house, coddling and dieting himself for some days, until he has recovered from the shock produced upon his system by the increased weight of his responsibilities as a father. This custom is still also in some measure extant in many of the civilized villages on the Solimoens, where amongst the Tapuyos, and even degrees more approached to white, the father, on the birth of a son or daughter, lays himself in the hammock, from which he will not move on any consideration to do any kind of work, nor especially to touch any cutting instrument, fearing thereby to exercise evil influences upon the healthy development of the child.

The Jívaros of the Pintuc, and most others, have the habit of vomiting nearly every morning, by the aid of a feather—a practice similar to that of the Piojés of the Putumayo—arguing that all food remaining in the stomach overnight is unwholesome and undigested, and should therefore be ejected. It has been asserted that their remarkable health and prowess is partly attributable to this habit: certain it is that it obviates some of the bad effects of the not unfrequent "gorging" in which Indians after long fasts are so prone to indulge. However, the Piojés, who treat themselves in the same manner, are certainly not more healthy—and less brave—than most other similarly placed

* This strange and interesting custom was related to me by my friend, the Rev. Padre Pozzi, who resided as a missionary amongst these Indians for some years.

tribes. If it is a fact that the Jívaros are generally healthier and more robust than the rest of their race near the Equator—more astute and fearless they certainly are—it would seem reasonable to attribute this to the simple fact that their habits of work and rest are more regular, and they are much more provident than other tribes in keeping themselves supplied with food of good quality.

We continued our friendly relations at the Pintuc and received many daily presents of yuca, plantains, sweet potatoes, and fowls, presenting the Indians in return with hatchets, looking-glasses, and beads for the men; and needles, thread, and beads for the women. We also procured some of their tiger and monkey-tooth necklaces and some feather ornaments.

My companion, Mr. Sarkady, photographed the house and our tent, and afterwards twice attempted a group of the Indians; but as they always moved, and a monkey, one of the numerous pets about the establishment, meddled with the chemicals, the result was by no means brilliant.

The “cluck” of satisfaction referred to previously requires a little explanation; and it seems to be an expression common to all the tribes of the Provincia Oriental. It is not produced by a mere “click” of the tongue inside the closed, or nearly closed, teeth; but by placing the tongue forward between the teeth, exhausting the air in the buccal cavity, and then suddenly opening the jaws and allowing the tongue to spring back to its normal position when at rest. The cluck usually signifies admiration, satisfaction, or astonishment; but it means something more than either of these, and occasionally expresses all of them together. When some other Indians were carrying our baggage later on, if they had set down the load and had to hoist it on to their backs again, or if they came to a bad step on the forest track, which had to be struggled over or climbed up with difficulty or strong effort, the muscles were always first braced with a “cluck,” as a man might say “here goes,” before taking a powerful leap.

The Canelos Indians.

Canelos, the once attractive Spanish settlement, but now forlorn Indian village, is situated on the left* bank of the Bobonaza, one of the most important, if not the largest, of the tributaries of the Upper Pastassa, and is inhabited by a mixed tribe of Indians, in whom the chief element is Jívaro; though

* Professor Orton in “The Andes and the Amazon,” says on the *right*; but he never went there.

some of the better traits of these seem to be wanting in them. Their language is Quichua.

They are lazy workers; and the young men, much after the fashion of more civilized communities, given up to dandyism, drink and trivial loquacity. All are excessively curious, and some even coolly placed their hands in my pockets to find out of what the contents consisted. However, some of the old and more serious men are quite steady-going members of society, as a rule; but even these also, on occasion, are fond of their little excesses.

The Canelos are not so jealous of their women as the true Jívaros and the Napos; but retain the valour of the former, and are always ready to face wild animals, or to defend themselves bravely against the attacks of the Jívaros *bravos* who sometimes fall upon them, and on which occasions they ally with the Indians of the Pintuc and Sarayacu, the latter a village further down the Bobonaza.

Their fighting is done entirely with the lance, which is their inseparable companion, and all my attempts to induce any of them to part with his weapon were useless. The same reply was always elicited: "Wherewith shall I kill the jaguar when he comes?" These spears, as those of the Jívaros, are very well made, of chouta-palm, and generally with a well-shaped iron or steel head, procured from traders. Some men have, however, on one or two occasions, penetrated into civilization as far as Riobamba solely with the object of purchasing a spear-head to their taste. The shaft is gracefully tapered towards the end, and sometimes tastefully coloured.

Amongst all Indians "Women's Rights" are at a very low stage of advancement; but amongst the Canelos probably more so than others. As with many tribes, the young male grows up very independent; and as soon as he can run about, rapidly acquires all the habits and vices of his elders. His day is chiefly spent in lolling round about the village, or further in the woods, with his blow gun, which he learns to use from childhood to the destruction of all the small birds. He also learns to fish and follow game, and soon becomes an adept in woodcraft, recognising at a glance the slightest trace of a track of man or animal, the nature of the thicket before him and the trees above him; and, when still a boy, every tree and spot for miles around his home is familiar to him. Besides this, he acquires that knowledge, almost instinctive in the Indian, of locality and direction, so difficult to understand, but which undoubtedly is instilled into the mind by the almost unconscious observation primarily of the position of the heavenly bodies, the direction of prevailing winds as frequently illustrated in the

growth of mosses and lichens, and the bend of trees, the general currents of the smallest streams, and the closest appreciation of many minor sources of enlightenment which would escape the notice of any but the most practised woodsman. It is truly marvellous to witness the knowledge an Indian displays (especially the Záparos) in detecting the presence of animals and tracking them, without even following *on their trail* half the time, when the unsophisticated can neither see nor hear anything to indicate that game has been or actually is near at hand. For an Indian, the slightest sound, rustle, or a glimpse of the tip of a feather indicates to him at once all the particulars and species of a bird that may be hidden in the dense wood at the top of a tree through the heavy foliage of which it seems impossible to discern anything.

Once a proficient hunter and possessor of good poison, of which fact the community is made aware by the number of toucans' tails with which he adorns his person—this bird being one of the most difficult to kill as it is nearly always seen at the tops of the highest trees and is one of the toughest preys to the Tecuna poison—he finds no difficulty in successfully making his advances to any young squaw to whom he may have taken a fancy. In reality there is little romance in the Indian maiden's preference for the greatest hunter: her "penchant" for him lies in the hard probability that he, above others, will be more likely to provide her with an abundance of animal food.

The wife selected, she is bestowed upon the happy swain by her father; and all the bridegroom is required by custom to do, either then or previously, is to clear the ground necessary for a plantain and yuca plantation. This practically almost ends his destiny so far as work and the care of his family is concerned; and on the days he has not a special fit of laziness at home or jollification in the village, such as a wedding, death, the cleaning and weeding of a plaza, the arrival of friends from or departure to the Marañon for the purchase of salt and poison, each of which occasions constitutes a drinking bout of at least three days and nights, he merely strolls into the woods to seek game, which in the neighbourhood of the villages is generally rather scarce. He consequently returns usually unladen; but if successful, upon entering the house, throws his sport with disdain to the ground and himself into the hammock, and haughtily receives the attentions of his wife and the "chicha" proffered for his refreshment. Every time a stranger enters a house, he is barely seated before each one of the women separately offers him a calabash of chicha.

The poor woman leads a hard life; for apart from the arduous duties falling to the lot of all natural mothers, she has

to plant the "chacra," clean it and gather the fruit—a harder toil than may be imagined—make the chicha constantly, cook, cut and carry the firewood, provide her own dress and ornaments, and whenever her husband is drunk follow behind him like a dog by day and go before him by night fanning a firebrand to and fro to light his path, with the general duty of aiding him to rise each time the ground may come into contact with his lordly head, and assisting him in any other manner that may offer. The precedence is given to the wife by night, so that any venomous snake or other vermin lurking in the path may attack her first and not her affectionate husband, and to illustrate to him more clearly the steps he should choose.

When these Indians came, almost daily, bringing in large bunches of plantains, etc., the man always walked first with his lance in his hand and feathers on his head, whilst the wife followed meekly behind, laden like a pack-horse with the fruits, and often a child on her hip besides, and another dragging at her heels. I once suggested to some of the men that they should provide their women with some ornaments and clothing, but they evidently took my remarks to be pleasantry.

The favourite amusement current seemed to be beating the drum, an instrument about eighteen inches long and twelve in diameter, scooped out of a solid log, and generally imported from the Napo, where the Canelos and Sarayacus go on foot to fetch them, thinking nothing of walking from Canelos or Sarayacu to Aguano and back, only to buy a drum. During the fêtes before referred to, the three monotonous strokes, one long, two short, and a rest, are heard day and night; or a solitary Indian, decked in feathers, and followed by his faithful spouse, may be seen reeling from house to house tattooing on the instrument, which is suspended by a cord from his neck.

My companion, Mr. Sarkady, photographed the "church" and "convent" with two Indians, whom we had great trouble to get to stand with us, as they have the idea that their soul is carried away in the picture; but they soon stopped and returned to us on our telling them that it was too late, since we had already secured their spirits. They were in some alarm and the next day came specially to ask again if it were really true that we had taken away their souls.

An old Indian named Marcelino, a sturdy old fellow, was, of the many Indians I have seen of his class, the most intelligent and desirous of acquiring knowledge, and not out of mere curiosity like his brethren. To his repeated and urgent questions, I explained to him how far away my country was; how on foot and in canoe—the only methods of progression known to him—it would take him ten moons to reach it, were this indeed

at all possible ; how many of its villages contained each more men than all the tribes he knew put together ; how knives, axes, beads, *lieuzo*, guns, and all such things were to be had there in the greatest profusion, and that even any of these articles which he possessed were made in my country. And I further explained to him that there was no jaguars or snakes to destroy one's dogs and children, but only animals useful to man, and that served him for food. He must have thought it a paradise.

One of his most earnest inquiries was regarding the rotundity of the earth, and I expounded the, to him, astounding and new theory that if he went on always in the same straight direction he would at last, after years' of walking and canoeing, come back from the opposite direction to the same spot whence he had started. He told me that he thought that upon reaching the horizon—which, however, if he tried, he must have found it difficult to attain—he would fall over a great precipice. I also told him that we had a method of transport by which we could go a distance as from Canelos to the Topo in less than an hour, over the rivers and through the mountains. This information brought forth a sounding “cluck.”

The seriousness and earnestness with which he listened to my explanations interested me much, and we became great friends. I delighted him exceedingly by giving him one of my pipes to smoke, and he, to make the best of it, completely swallowed all the smoke he could draw in huge volumes. The next day he told me he had been so giddy from its effects that he had felt very uncomfortable and could hardly stand, which did not surprise me much in one who had never before smoked strong tobacco, and from a short pipe ; nevertheless, he was nothing loth to have another fill, and took care not to waste the good things that were laid before him by again swallowing all the smoke, regardless of the discomfort he knew it would afterwards cause him. I reminded him of this, but he merely said “he liked smoking the pipe.” His thoughts never went forward to inevitable consequences ; as ours in parallel cases so often disregard the unfailing Nemesis.

DISCUSSION.

Dr. HACK TUKE wished to make an observation on the striking fact common among savages, of which a remarkable illustration had been given in the paper just read—namely the wonderful acuteness of the sense of smell. No doubt our ancestors at a remote period possessed the same faculty, and what interested him was to see cropping up from time to time, instances of the recurrence of this heightened olfactory sensibility. He knew a gentleman who, when

young, always smelt the keys of the piano before playing, and in fact tested everything by an application to the nose in the first instance—it was his guiding sense. He knew a little girl who always did the same thing. Again, only the other day he became acquainted with a gentleman who when young could accurately distinguish the gloves of different people simply by smelling them, provided he was familiar with those to whom they belonged; in fact, he recognised persons as much by scent as by sight. This reminded him of the fact that in certain morbid conditions of the nervous system, temporarily induced, the most remarkable exaltation of this sense, and indeed, of the gustatory sense as well, occurred. Circumstances which appeared very mysterious, might thus often be explained. Another sense at first sight, seemed super-added, but it was only a hyperæsthesia of a natural sense, either through hereditary descent as in the first class of cases, or by inducing vascular and corresponding nervous changes, in the other class.

“KEMP HOW,” COWLAM. By Mr. J. R. MORTIMER.*

“KEMP HOW” is one of the few barrows on the “Cowlam Farm,” six miles north of Driffield, which some few years ago was opened by the Rev. Canon Greenwell. At the time of his researches, and until quite recently, this mound was covered with a clump of old fir trees. Previous to the planting of these trees, a moiety of the south-east side of the mound had been carted away, leaving it somewhat unshapely and its original limits difficult to determine. But a three-weeks’ free use of the pick and the shovel during July and August, 1878, enabled me to obtain the original plan of this remarkable barrow.

At the time of opening, it measured $4\frac{1}{2}$ feet from base to summit, and the natural surface of the ground beneath it stood fully 1 foot higher than the present surface of the land for some distance round its margin.

It was formed entirely of chalk rubble and soily matter, obtained mainly from an encircling trench, which on the north-west side was very deep and wide.

We turned over the whole of this mound except its outskirts. Near the north-west margin there was an excavation (marked “D” on the plan), extending 8 to 10 inches below the base of the mound, and measuring $8\frac{1}{2}$ feet by $6\frac{1}{2}$ feet, the floor of which was covered all over with a film of dark matter, in which were small bits of burnt wood. No relic, or the slightest trace of a body,

* Read June 24, 1879.

was observed. A little west of the centre (at “B” on the plan) there was a still larger excavation, 18 inches deep. It contained rough chalk, but no trace of an interment. East of this was a third excavation (“E” on the plan) oval in form and 3 feet deep.

Like the previous one it was filled with chalk and contained no relic or trace of a body. The digging of these had preceded the erection of the mound, as there were no indications of it having been cut through. The conclusion is forced upon the mind that these excavations were graves, and that the bodies they at one time most probably contained had, from the access of air and the free percolation of water through the open superincumbent mound, finally disappeared.

This was not, however, the case with the secondary and comparatively recent interments of six adult bodies, found at the south-east side of the mound, 1 foot to 2 feet below its base. Though unaccompanied by any relic, the very narrow form of the graves and the extended and but slightly flexed position of the bodies alone showed them to be Angles.

The dark lines round the bodies give the shape of the graves (which is the general form of the Anglo-Saxon graves of this neighbourhood).

Below these secondary graves there was found an older and far more interesting excavation. Its form and position is shown on the plan of the barrow at “A.” At first it was thought to be a huge grave, but as the work proceeded appearances indicating it to have served some other purpose were visible. Its filling-in was peculiar. It consisted of broken chalk, surface soil, and burnt wood, presenting altogether a very unusual arrangement. Along its centre for a distance of about 15 feet were six carbonized uprights of wood, 6 to 9 inches in diameter, at about equal distances and in a row. Wood ashes were also found on the sides and bottom, and scattered in the material filling the excavation.

Also along the centre many of the large flat pieces of chalk stood on their edges, and from various depths we picked up portions of animal and probably human bone, burnt as well as unburnt, and many fragments of a reddish urn. It was observed that the east end of this excavation became narrower and rose towards the surface. It now seemed evident that it was not a grave for the dead, but a house for the living. Its form, as shown on the accompanying plan, was oblong, with a ground floor, 25 feet by $4\frac{1}{2}$ feet; and its greatest depth was 6 feet. To its east end was a passage 11 feet long, gradually sloping to the surface.

On its south side, commencing at the inner end of the passage and extending inwards for about 12 feet, was a ledge or rock-

seat standing about 13 inches above the opposite side of the floor, as shown by the dotted lines in the plan and section. The whole width of the floor at the south-west end, for a distance of about 6 feet, was 10 to 12 inches above the centre and lowest part of the floor. Probably this end of the artificial cave-dwelling was used as a sleeping compartment, whilst the ledge of rock near the opposite end of the dwelling and communicating with the entrance-passage was the seat on which those ancient Troglodytes sat, “chipped the flint, carved the bone or jet, and moulded the rude pottery,” the fragments of which we possess from the *débris* of the cave. The roof of this cave had most probably been formed of horizontal timber, supported by strong uprights of the same material, and then covered with a mound of earth and stones. After which, from some cause or other, the roof gave way and the superincumbent earth and stones slid into the dwelling, several of the large flat stones, as before named, remaining on their edges, and the filling-in was altogether strikingly peculiar.

The abundance of wood ashes affords unquestionable evidence of the dwelling having been burnt, either accidentally or by an enemy. The preservation of the six uprights was due entirely to their having been completely charred. The fragments of red pottery previously named are quite plain and belong to three or more vessels, which were probably used for domestic purposes.

The roof of the cave must have fallen in long previous to the Anglo-Saxon interments, as where the bodies lay, partly over the cave and partly upon the undisturbed rock, not the slightest distortion was visible, which would have been the case had not the filled-in portion under the bodies become through time as firm as the undisturbed rock itself. Near the south side of the dwelling, at about the base of the mound, we picked up several broken human bones and bits of a dark-coloured urn. Probably these belonged to a disturbed Anglo-Saxon burial.

We also found in the material of the mound, between the graves E B D, a considerable quantity of detached animal and human bones; the latter indicated three or more individuals, a few of the bones showed traces of fire. There were also several small pieces of a dark plain urn. From a little south of the grave “D,” one of the workmen picked up a large jet stud, of British type, but having been found in material, part of which had fallen from above, its original position was not made out. Considerable interest is attached to the cave-dwelling being within the encircling ditch of the barrow, and had not this side of the mound been previously removed, a section would have shown whether the cave was posterior to, or contemporaneous with, the erection of the barrow.

This cave is not the only example I have met with during my explorations in a small area on the Yorkshire Wolds.

I have found in connection with tumuli, distinct remains of six other ancient dwellings which seem to belong to the barrow period. Two of these resemble the one at Cowlam, except being more in the form of an oval, or irregular square, and in having two entrance-passages each. The remaining four represent two other kinds, about which I may have something to communicate on some future occasion.

On the BHEEL TRIBES of the VINDHYAN RANGE.

By Colonel KINCAID.*

Designation of the several Castes.

THE designations of the several castes are very numerous, but they appear to be more used as a surname than to show any religious or social distinction. They cannot marry in their own caste, but only with those of another designation; the offspring, if any, bearing the surname of the father.

The castes are as follows :—

Busonia,	Bhooria,	Baondur.
Bundera,	Buloria,	Buria.
Bugaria,	Bularia,	Bhatia.
Burwuda,	Bakhla,	Bhabur.
Chowan,*	Charil,	Chudania.
Chunra,	Dabee,	Dadiar.
Dhamar,	Dowar,	Dangee.†
Dussana,‡	Gurawa,	Gawar.
Gorwal,	Kutara,	Kana.‡
Khar,‡	Kutaja,	Kunasia‡
Koomar,§	Kolee,	Doda.
Mukwana,‡	Mileewa,	Mukaria.‡
Mainda,‡	Muchar,	Mawee.
Moonia,	Minawa,	Mohunia.
Ossarie,‡	Purmal,	Phoolpoojar.¶
Pergie,	Pardee,¶	Kartwa.
Singar,**	Silote,‡	Soortana.
Soolee,	Umhar,	Ujna.

Rajpoot clan.

† *Dangee*—Boondela, a Rajput.

‡ All names of villages in the Bheel country.

§ *Koomar*, a Potter.

¶ *Phoolpoojar*, lit. flower worship; *Moonia* (?) Manhihar—a Chûri or glass bracelet maker.

¶ A caste of hunters with nets.

** *Singoria*, a dresser of idols.

* Read November 11, 1879.

Descriptions of the Local Bheel Tribes.

The principal divisions, however, of the Bheels are hill and village tribes. The latter have lost much of the suspicion and fear with which they regarded the outer world, but they have gained the art of lying, of which the wilder tribes are quite ignorant; these always speak the truth when not rendered dumb by fear.

The Bheels living in villages inhabited by other tribes seldom comprise more than one or two families, who have sprung from a common ancestor, who, having been entertained as a Manker,* or tracer of thieves, had received a small grant of land, besides the right of levying dues on crops of others; in return, the Manker gives service to the village, by tracking robbers from his village, and taking up any such track brought by the manker of neighbouring villages, and either produces the robber, or carries the trace beyond his own boundary, in default of which, he, or the Bhomia who may be responsible, is held answerable for the stolen property.

Rules in force among the Bheels for tracing Stolen Property.

The person robbed gives immediate notice to Patail or Manker, and if at night, furnishes oil for torches; examination of the place is then made; when footprints are found, the Bheel Manker measures the length and breadth with small pieces of sticks; these footsteps are followed up till the next village boundary is reached, the person robbed and Patial accompanying him; at the boundary, the Patial and Manker of this village are summoned, to whom are delivered the pieces of sticks and the footmarks are shown; should any doubt be expressed, or the Manker of the new village wish it, he is taken back to the place whence the trace originally started, but otherwise he takes it up from his own boundary, and, if possible, traces it into another village, the owner and the Manker of the first village accompanying him to see if the traces are properly carried on. The owner should not leave till the trace is lost, or the thief caught; and the Manker should always go one village beyond his own to ensure the trace being properly carried on.

Should the farmers or grantees, &c., deprive the Manker or turvee of his tittle or wutten, he leaves the village at once, and returns to the tribes in the hills.

* Village guardian. The tracker in upper India is not the same individual as the village chokidar, or watchman, or village guardian, and every village does not possess a man with the necessary experience and qualifications.

Effects of Confiscation of their Rights on Village Bheels.

If every village Manker's rights were ensured, few would desert their charge, and the duty of tracing being properly performed, robberies of cattle would decrease.

Failure of crops invariably results in an increase in the number of robberies, and good crops in a diminution; the former evil may be arrested or averted by timely advances made by Government on the security of the Bhoomiahs, but it would require the strictest scrutiny to prevent the Bhoomiahs abusing the benevolence shown.

Evil Effects on Bheels of Debt.

In the Bhoomiah villages, the Mankers often borrow money from their Bhoomiahs (Bheelalah chief) pledging their rights for the year in payment; in the same way the cultivating Bheels forestall their crops, not only to their Bhoomiahs but to the "saukars" (money lenders), so that their labour is as nought; they reap no fruit therefrom, and they thus become careless, both in performance of their duties and the cultivation of their fields.

The Bheel occasionally lets himself out as a servant to liquidate his debt.

Their method of settling disputes is by assembling the whole of the Bheels of the two villages to which the disputants belong; the matter is then discussed as in Panchayat, and when they are agreed as to the sentence, one party pours a quantity of spirits into his opponent's hand, who, vowing if he ever quarrels on the point now settled, the curse of the deity, *mátá* or small-pox, may fall upon him, drinks it off, the other party going through the same ceremony.

The writer has never known an instance of a renewal of quarrel after the above detailed ceremony has been gone through; it is called "chak phirana."

Bheel Oaths and Ceremonies.

The Bheel believes the horse and dog accompanies him, if a good man, to the spirit world. He respects and prizes these animals much. I never could find out from them why they swore by the dog; in fact, they don't know. The dog is invaluable as a hunter and a protector.

There are some oaths and ceremonies which no Bheel will venture to break; one is swearing by the dog, the Bheel placing his hand on the head of the animal, prays that if what he says is not true, the curse of the dog may fall upon him.

Another is sworn by taking a small portion of Jowari grain into the hand and holding it up, praying that the Jowari he eats may bring curses and destruction upon him should he

speak aught but truth ; another oath is by placing the hand on the head of a son.

In many instances when these oaths are made use of, written agreements are given by which the person swearing agrees that should any serious or extraordinary injury to himself or his family occur within a certain time he will consent to be held guilty ; there are instances of the opposite party setting fire to the swearer's house, and then claiming a decision in his own favour, on account of loss occurring to the other.

The ordeals of plunging the hand into hot oil, and of holding hot iron in the hand, are also practised.

Superstitions.

When a Bheel starts on a journey on business, should he meet the bird called in Malwa "Sugoon Chiria," but by the Bheels "Dew kiria," should the bird be on the left hand, it is a propitious sign, and also if on the right hand on returning ; if the bird cries out on both sides, the Bheel can go anywhere, but, if on the right, or in front, or behind, on setting out he cannot stir, but should he be compelled to go, he cuts a small turf, and placing it under a stone, he places both feet on it to deposit all fortune beneath it.

When a Bheel goes out to fight or rob, if the Byroo bird or roopa saikh is on his right hand, he will prosper and escape wounds, but if either of these birds appear on the left hand he will not go.

They believe strongly in witchcraft, and also in the power of the Burwas, or witch-finder, to point out who may be the witch who has inflicted the injury.

Should any person related die without apparent cause, they go to the witch-finder and inquire who caused their death ; the witch-finder, a shrewd clever fellow, selects the most ugly, disagreeable old woman in the inquirer's village, and then proceeds, apparently oracularly, to describe the old witch, and when she is arrested, she is tried much as witches used to be in civilized England two hundred years ago ; she is placed in one side of a bullock's pack-sack, and three cakes of dried cow-dung in the other side, and she is thrown in the water, when, if she sink, she is no witch, but if she swim she is.

Another mode is by rubbing cayenne pepper in the eyes, which in a witch has no power to produce tears.

A melancholy case of this occurred in the writer's experience, when an old Turvee Bheel, who had lost his son, went to a witch-finder, who pointed out an old woman in the village, and said that she had eaten his son ; upon this he returned to his village, and with some other Bheels took the old woman down to the river side, and rubbed cayenne-pepper in her eyes,

and afterwards declaring she was a witch, knocked her on the head with a stone till she died.

The Bheels are very suspicious of their wives, and apparently not without reason, as two-thirds of their complaints have their origin in disputes about women, and they assign this weakness of the sex as a reason for never building their houses close together, but always some distance apart.

In former days, when a Bheel chief took a fancy to any woman, he simply carried her off, but this is not done now. A Bheel chief, however, has been known to come and ask for a *purwana* (written order) to run off with another man's wife, she being willing; his reason for making the request, was, that the government officer might be displeased with him for not asking leave.

Girls are married at about twelve years of age; there is no betrothal, other than that eight days previous to the marriage. Nor is there any rule about the bride's return to her own house, as amongst Hindoos.

The family of a boy who wish him to be married, having agreed upon the girl to be selected, go to her father's house with 20 rupees, of which $16\frac{1}{2}$ are given to the girl's family, and $3\frac{1}{2}$ to her sister; this must be always done on Sunday, and on no other day; agreement is then made as to date of marriage, and construction of marriage shed (*mundup*); on the day agreed upon, the girl's family gives a gift to that of the bridegroom of a *ghurra* of spirits, receiving a similar gift in return from the bridegroom's family; they then return to their house.

Seven days subsequently, on the following Saturday, the bridegroom's family and friends bring him home to the bride's house, the women singing, the men with naked swords in their hands, which they wave and dance in procession, beating tom-toms the while.

On Sunday at break of day they all go to the bride's house, a woman of the bridegroom's family waving a bamboo *punkah* or fan over his head, two Bheels of his party precede the procession to the bride's house; on arrival they inform the young woman's mother that the procession is at hand, who, thereupon presents them with a cup of *ghee* (boiled butter), sweetened with *goor* (unrefined sugar).

The members of the procession seat themselves under any tree or in any shade near or in the village, and at two hours after sunrise go and wash, when the bridegroom's sister or nearest female relation gives the party spirits to drink, and they eat bread made the day before. In the afternoon the procession goes to the bride's house in the same manner as the day before, and within the enclosure they seat themselves, the bridegroom touching the shed (*mundup*) with his sword.

The woman of the bride's family then takes the bridegroom to the bride's "mata" or tutelary deity, and having seated the bride and bridegroom on a log of wood, if a Brahmin be present he reads a "muntra," otherwise they all worship the deity together, and tie up one pice and a betel nut in the corner of the bride's "Sāru" (cloth) all returning to the mundup, when the Brahmin having prepared some flour and water, with ghee and sugar, offers it in a burnt sacrifice, the bride and bridegroom standing together on the log of wood; the brother of the bride clasps his hands and stands before them, placing sesamum seed and barley into their outstretched hands; at this juncture the Brahmin ties up a pice, and holds it out with a kerchief in an earthen lota, and gives to each a betel leaf, joining their hands with the leaf thereon; he then covers them over with a cloth, which marries them.

Seven times round the mundup shed do they then march hand-in-hand, an offering being burnt before them, and the lota with pice, etc., rattled.

The young bride's mother's brother unlooses their hands, and presents the bride with a cow, and the bride rubs the bridegroom's forehead with some of the aforesaid sweetened flour and water five times, he doing the same by her; this ceremony is called "kuss."

The bride's father then gives a copper "talū," a brass "lota," and a nose-ring to the bride and to his new son-in-law a red wrapper, and "pugree" (turban) to his brother; any article of clothing to his maternal uncle; 1 rupee 4 annas to the Brahmin, and their dues to the barber and wutundars.

The tomtoms now commence to beat, and the procession coming outside they worship the dust heap of the house, burying in it a pice and a betel nut.

The bride's brother is afterwards seated in the mundup on a cloth spread for him, with a brass plate in his hand; he invites the people to eat pawn, after which a Brahmin puts a red wafer (Tika) on their foreheads. The Bheel guests then all contribute money, according to their means, into the plate, of which the Brahmin gets 4 pice, the barber and bullai 2 pice; what is over the bride's brother keeps.

The whole party finish up by drinking together, men and women, and having eaten, the marriage procession takes the bride, tomtoms beat, swords wave, glee songs are sung, and dancing, jumping, and leaping, they go to the bridegroom's house, towards which the bride's family accompany them ten paces.

Bheelalahs.

The Bheelalah is a cross between a Bheel and a Rajpoot;

of this class are the Bheel chiefs of the Vindhyan range ; they do not intermarry with Bheels, but only in their own caste.

Marriage Ceremonies of Bheelalahs.

The marriage ceremonies differ from those of the Bheels inasmuch as those of Bheelalahs are more formal ; they are as follows :—

The Agreement.

The Betrothal.

The Wedding.

Agreement.

At first, four of the proposed bridegroom's family go to that of the bride's, and when they have agreed to the terms of the marriage, the bridegroom's family take two ghurras (earthen pot) of spirits, one of which they drink on the boundary of the bride's village, the other at her house ; this is called the "kucha sugaie" and the spirits "kam soonane ka daroo" (literally, spirits making the business public).

The "pucka sugaie" is by the husband's family bringing two large ghurras and one small one of spirits, the latter they drink at the boundary, the former at the bride's house, and to her also are given at this time a cloth (petticoat) and two "cholies" (head cloths).

Ten days before the marriage the bride and bridegroom are both covered with turmeric ; four days afterwards the bridegroom goes to the bride's village, where her relations conduct him to a house provided for him.

In the evening both parties eat together, and they then seat the bridegroom on horseback, and conduct him to the bride's house.

There a mundup or kind of shed is constructed, in which a ghurra filled with water and Jowarie (millet), is placed.

In front of this is a "turun" or post with cross pieces of wood, which the bridegroom touches with his sword and enters.

The bride is then brought out and seated opposite him, after which they go into the house, where a punkah is waved over the bride's head ; a burnt offering is made of "til" (oil seed) and "jau" (ground barley) round which they march seven times, their clothes being tied together.

The night is spent in drinking and dancing. The husband and wife remain together, and in the morning he takes the bride to his own house.

The Bheels who have attended the wedding bury their

bows and arrows near the shed. A few days afterwards the father and mother of the bride take her back, when she remains with them a week, and then returns to her husband.

The "dag" or dowry given by the husband is 16½ rupees and by the bride, one thalee, one gold nose-ring, and one malá or necklace of small stones.

The Bheelalah woman does not make a second marriage, or "natras," though the Bheel woman may; but when she does, the man whom the widow marries must give two rupees or a ghurra of spirits, and six cattle to the family of her former husband.

If the husband die and his brother choose to marry his widow, she is not allowed to marry anyone else, but her brother-in-law may take her and all the property and children; the brother-in-law often gives her, willing or unwilling, to another, receiving a sum of money for so doing; and this is a fruitful source of quarrel when the woman refuses to be so made over.

This custom, however, does not appear to be sanctioned by caste usage.

Should a widow have no offspring, her husband's property is divided among his relations, but should she have a son, it is the proper custom that so long as she behaves herself and lives in her son's house, her brother-in-law cannot interfere.

Wives leaving their spouses subject their lovers to a fine of twelve cattle for a first, and six for a second marriage, and the gallant has to pay three for running away with a virgin.

The Bheels bury boys and maidens, and those who have died of small-pox. The corpses of all others are burnt.

Those who perform the funeral ceremonies are called the "Goosain Rawuls." Those of the Bheels who cannot afford special burial ceremonies, have the ceremonies of their dead performed by the Rawul on "Baisakh soodh poorneema," on which day the Rawul comes and plays the double guitar, and sings the praises of the deceased before his children, if he has left any, whereupon the father's spirit is supposed to enter his child's body and make known the manner of his death, what money is owed to him, and what he owes, and the heir is that child into which the father's spirit thus enters.

After inquiry, when the revelations are found to be correct, the heir gives a feast to his relatives, and presents a bullock to the Rawul.

The Bheel is very dirty in his habits, and never washes.

The principal diseases from which he suffers are enlarged spleen and small-pox. The latter disease he worships, or rather the spirit that brings the plague.

The policy of the Native states towards the Bheel has

always been overstrict rather than lenient or encouraging, for they look on the Bheel as an outcast, and utterly beyond their sympathy.

DISCUSSION.

Mr. KEANE wished to know whether Colonel Kincaid had turned his attention to the wider question of the ethnical and linguistic affinities of the Bheel tribes. It would be interesting to know whether there was any foundation for the distinction often drawn between *Ujrāla* (bright or fair), and *Kālā* (black) Bheels, the former supposed to be half-castes, with Rajput blood, the latter to represent the true aboriginal stock. They were usually described as of a somewhat Mongoloid type, with slightly prominent cheek bones, long and lank hair, low height, but straight eyes, and speaking, besides the common medium Hindustani, a peculiar language, allied rather to the Kolerian than to the Dravidian or Neo-Sanskritic tongues. Could the Colonel throw any light on these points?

Mr. WALHOUSE said:—I have no personal knowledge of the Bheels, my residence in India having been in regions far remote from the Vindhya. But the account of them just read, recalls in many particulars some races of Hindus far down in the south of the Peninsula. The *Kallar* on the borders of Tanjore, and the *Morravar* of Siraganga, and Ramnād in the adjacent district of Madura, seem to bear a strong likeness to the Bheels. They are aboriginal races, black, thick-set and sturdy, hair inclined to be bushy: “Kallar” means robbers, and they by no means disown their profession or consider it discreditable; indeed, the caste ranks high amongst the Sudras, and they have a king, the Tondiman Raja, of ancient descent, and ruler of the Pudukottah State. Since the days of Clive, the Tondiman Raja has always been a faithful ally of the British, and often furnished us with reinforcements of his subject *Kallar*. The present well-educated and enlightened Raja receives a salute of twelve guns when visiting Madras. Unscrupulous as thieves, they are men of their word, and to this day are employed by the English residents of Trichinopoly to watch their bungalows, a trust they faithfully fulfil, and keep off all other thieves; should however, any theft be committed, they hold themselves responsible for it. Of old, they used to carry long spears with which they crept along the ground, and used with formidable effect in ambuscades, and were especially dreaded for killing and stealing horses in camps. Their skill in tracking equalled that of any savages, and they were wont to relate with pride their most daring and successful feats of robbery. Their ordeals and marriage customs, I believe, agree generally with those of the Bheels, but I am unable to give precise details. They are now fast becoming peaceable cultivators. Like the Bheels, and indeed all Hindus, they live in continual dread of witchcraft and

sorcery, and are too often driven to cruel deeds in revenge for supposed injuries.

The PRESIDENT remarked on the prevalence of the Hindu element in Bheel civilisation, as shown by such special points as witch-ducking, and swearing on the son's head. He asked for further information as to the meaning of the names of Bheel tribes or clans, with the view of ascertaining whether any of them are names of animals or plants, that is, what are commonly called "totems."

Colonel KINCAID, in reply, said: I have found the village Bheels fairer than the hill tribes, probably attributable to less sun exposure, the type being everywhere the same as Mr. Keane describes: mongoloid, lank hair, prominent cheek bones, straight eyes, short and sturdy, with remarkably well developed calves—a great contrast to the Hindoo. The wild Bheel, after enlisting in the Bheel regiments, undergoes a remarkable change in appearance. After a year or two he loses the wild look in his eyes and becomes several shades fairer; but never loses his keen sense as a hunter or tracker, and is therefore a valuable soldier for local service. The Bheels all speak among themselves a peculiar language, of which I had collected a vocabulary, but which I left in India, from whence I will forward it. I do not believe the language to be allied to the Dravidian. I will also forward translations of the tribal names. I believe some are names of animals and plants.

The ETHNOLOGY of GERMANY.—PART IV.

THE SAXONS OF NETHER SAXONY.

Section II.

By H. H. HOWORTH, Esq., F.S.A.

THE ethnology of Germany has been so assiduously worked out by Germans that it would seem as if little or nothing remained for a gleaner to collect, nor is there much if we follow the beaten track and resift the same authorities which have been thrashed out for generations. If we are to do original and fertile work in this inquiry we must go far a-field and dig into obscure corners and collect forgotten details. I believe that by doing so much fresh matter may yet be gained, as I trust the following paper will show. In it I think I have shown conclusively on historical grounds what I have already concluded from other considerations—that the Saxons were not the indigenes of Nether Saxony, but were as much invaders there as in Britain; that they probably did not occupy that area until the 6th century A.D.; and that the previous inhabitants were the Thuringians. These results will be acknowledged to be important if proved,

and in order to prove them I have collected all the notices I could find of these Saxons down to the date of their incorporation by Charles the Great, so as to make the monograph as perfect as possible.

We will begin with the native traditions of Saxony.

The earliest native notice we have of the native traditions of the peopling of Nether Saxony is in the account of the translation of Saint Alexander, which was written, according to Pertz, about the year 863. There we read: "The Saxon race, as is reported from old times, left the Angles who dwelt in Britain, and navigating the ocean in search of a place to settle in, was thrown on to the coasts of Germany in the district called Haduloha (*i.e.* Hadeln) at the time when Theodoric, the King of the Franks, fighting against his relative Irminfred, the chief of the Thuringians, cruelly ravaged their land with fire and sword. When two battles had already been fought and Theodoric began to despair of victory, he sent envoys to the Saxons, whose chief was called Hadugot. Theodoric, having learnt the cause of their arrival, promised in case he was victorious to grant them a settlement, and they thereupon joined their forces to his. Fighting for liberty and for their homes they showed great valour, and the enemy was almost exterminated. Theodoric carried out his promise and gave the Saxons the land conquered from the Thuringians. This they divided by lot. As they were too few to occupy it all, they set aside the eastern portion, which was allowed to be occupied by 'Coloni,' who paid tribute; the rest of the land they occupied themselves" (Pertz, ii, 674).

This tradition I see no reason myself to question. The district of Hadeln is the only part of the coast where the Frisic inhabitants were displaced by another race, namely, the Platt Deutsch-speaking folk. It would be the very place where one would, *primâ facie*, first bring invaders who meant to appropriate the valley of the Weser. In regard to the date of their arrival it is very extraordinary that the first mention of the district of Nether Saxony made by Gregory of Tours, whose narrative was not, so far as we can see, known to the author of the "*Vita Alexandri*" just quoted, describes how *Theodoric* and Chlothaire, the sons of Chlovis, were engaged in a struggle there with Irminfred, the chief of the Thuringians in the year 528 ("Gregory of Tours," ed. Guizot, i, 131-134). On turning to the traditions of the Thuringians we find that they also speak of their people having been driven out of their old seats by the Saxons. Thus in the "*Chronicon Thuringiæ, incerto auctore apud Christ. Schoettgen, Diplomata et Scriptores Hist. Germ.*" etc., i, 85 *seq.*, we read: "In den Geczyten also dy Sachs in dy Doringe vortrebin von der sehe, do sy vor wonetin, obir den Harz in dit Land, das nu Doringen

genannt ist." Again, in "Sagittarii Antiq. Thuring." 97 seq.: "Es ist aber eine gemeine Sage und alte Tradition, die auch ihren grund haben kann (wenn es auch nicht damit hergegangen, wie Wittehind erzählt) das nemlich die Thüringer aus ihren alten Sitzen in diese Oberländer wären vertrieben worden." Again, in the Rhythm. Sti. Annoni ap, Schilter, i. 1. t. 1, stroph xxi:

"Vuzier ein deil mit Seifmeningen
Quamin nidir cir Eilbin
Da die Düringe du Sazin
Und sich wider ün vermazin."

I owe these very suggestive and valuable extracts to a treatise by M. Möller, entitled "Saxones, Commentatio Historica" (Berlin, 1830, note 43).

The tradition also gains much strength from the fact of its being widely disseminated at an early time; thus we find Adam of Bremen quoting Eginhardt, who wrote before the author of the "Vita Alexandri" and saying: "Saxonumgens, inquit (Eginhardus), sicut tradit antiquitas, ab Anglis Britannisque incolis egressa, per oceanum navigans Germaniæ littoribus studio et necessitate quærendarum sedium appulsa est in loco, qui vocatur Hatheloe." . . . Hæc tulimus excerpta ex scriptis Einhardi (Möller, *op. cit.*, note 18).

The tradition again appears in the narrative of Widukind, the monk of Corbey, who lived in the middle of the 10th century, with sufficient variation to show that it had an independent origin.

After stating that some derived the Saxons from the Danes and Northmen, others from the Macedonians, etc., he tells us we only know for certain that the Saxons came here in ships and first landed in Hadeln, but they did not leave their ships which were on the river bank.

He says that one of their young men having landed from his ship with some gold ornaments, including a golden torq and arm-lets, he met one of the Thuringians. "What are you doing," said the latter, "with such a massive gold object about your scraggy neck?" "I am seeking a purchaser," he said, "this is why I am wearing it." "How can gold delight one who is in danger of famishing?" The Thuringian thereupon asked its value. "I am not a judge of its value," said the Saxon. "Whatever you give me I will gladly accept." "What," said he, laughingly, "if I were to give you a lap-full of this soil?" soil being scarce in the place. The Saxon without hesitation opened his garment and accepted the soil, while the Thuringian took his gold and both returned gladly home.

The Thuringians praised their countryman to the sky and deemed him most fortunate in securing so much gold for such

little value. Meanwhile the Saxon repaired to the ships; some of his companions chided, some laughed, while all deemed him very foolish. "Follow me," he replied, "and see whether I have been so foolish." They followed their leader, who proceeded to sprinkle the soil thinly over the adjoining fields, which they then occupied as their own and fortified. The Thuringians seeing this, sent envoys to complain of the Saxons breaking their pact. They replied they had not broken the pact and had bought the ground with gold and were willing either to keep it peaceably or to defend it with arms. The Thuringians thereupon rushed wildly upon the fortifications and were defeated. The fight was renewed several times, and at length a truce was agreed upon, but at the meeting to arrange the peace, the Saxons produced their knives from under their garments and slaughtered the unsuspecting Thuringians. Witikind tells us the Saxons were accustomed to use long knives, such, he says, as the Angles (*i.e.*, the English) still use; and adds, that his people (the Saxons) called a knife "sahs," and thence derived their name. Schatin says the people of Saterland still call a knife "sachs." Nennius reports that when Hengist gave the signal to his men to fall upon the Britons, he cried out "En Saxones nimes eure saxes," which he translates "cultellos vestros de siconibus vestris deducite" (*Mon. Hist. Britt.*, 69 and 70). It will be noted that Nennius calls the followers of Hengist, Saxones. He seems to know nothing of Jutes. In the same way the Welsh seem to have called all the invaders Sassesach, and so call English people to this day.

But to revert to the etymology of the name. Gregory of Tours has the phrase: "Tunc duo pueri cum *cultris* validis, quos vulgo scramsaxos vocant, infectis veneno maleficati a Fredegunde regina" (Möller, "Saxones Commentatio," etc., 4, note 12). Möller gives another ancient citation from "Gobelinus Cosmodrom," vol. v, ch. 1: "Apud nos senioribus *novacula* qua pili raduntur dicitur: *sasz* et inde verbum vulgare videlicet *sassen*, *i.e.*, *novacula cæsariem radere*." (*Id.*)

Lipsius gives Scharsaxnovacula, as a gloss from a very ancient Latino-German psalter, and Lindenbrog, Schersaxnovacula (*id.*, note 13). Among the Danes, according to Möller, a pair of shears is still called "sachs."

Godfred of Viterbo, quoted by Pistor, *Script. Germ.*, ii, 253, has:

"ipse brevis gladius apud illos saxo vocatur,
unde sibi Saxo nomen peperisse notatur."

In the *Annolied*, Schilter, *Thes. Ant. Teut.* i, stroph xxi:

“Cin Duringin duo der siddi was
 daz si mihhili mezzir hiezin sahs,
 der di rekkin manigiz druogin
 damidi si die Duringe sluogin
 mit untruwin ceinir sprachun
 die ei vridin si gelobit havitin
 von den mezzerin also wahsin
 wurdin si geheizen Sahsin.”

(Möller, *op. cit.*, note 15, Grimm “Deutschen Sprache,” i, 425.)

I have small doubt myself that this is the correct etymology of Saxon. The use of a *short sword*, or knife, distinguished the Saxons from other tribes who used long swords, as, for example, the Cimbri, who, according to Plutarch (“Vita Marii” 6), used long swords (Möller, *op. cit.*, 5, note 16). Like most other races, the Saxons had an eponymos, who appears at the head of the genealogy of the East Saxons in Britain under the form of Seaxneat, the son of Wodin, the old Norse Saxnaut, old German Sahsnöz, Gothic Sahsanauts, which name Grimm explains as the Sword God, the God of War, and after whom he argues that the special followers and worshippers of the god called themselves (*op. cit.*, i, 425). We must now return again to Widukind of Corbey and his narrative.

Widukind goes on to say, that on the death of Hugo, King of the Franks, he left an only daughter named Amalberga, who was married to Irminfred, King of the Thuringians. The Franks, however, put Theodoric, who was born of a concubine, on the throne, and he sent an embassy to his brother-in-law with the news. The latter would have assented, but his wife, instigated by a man named Iring, apparently her lover, persuaded him, against the counsel of his grandees, that it would be unworthy of him to allow a mere slave to usurp the throne of the Franks. A message to this effect was accordingly returned, and Theodoric marched against him. The battle was fought at Rumberg (*i.e.*, Ronnenberg, in the district of Marsten, not far from Hanover). It lasted three days, when Irminfred and his people fled to a place called Scithingi (*i.e.*, the modern Burg-Scheidungen), upon the River Unstrode. The victory had been dearly bought, and Theodoric called a council to decide whether they should retire or stay. It was decided that it would be dangerous to retire, since they were much weakened, and that it was better to stay. He therefore determined to remain, and to send an invitation to the Saxons, the former foes of the Thuringians, asking their aid, promising them if they succeeded and captured the town of Irminfred, to make over the land to them. The Saxons were nothing loth, and sent nine of their chiefs with several thousand men. Leaving the bulk of their people outside, and escorted by some hundreds, they entered Theodoric's camp. These, said they,

had been sent by the Saxon people, and were ready to do his bidding; either to defeat his enemies, or if fortune should be against them, to die for him, and that with the Saxons the only wish was to conquer or to die. The Franks were much pleased with the martial qualities of their guests, who, we are told, were big of stature, and had their broad shoulders covered with hair. They wore woollen mantles, were armed with long lances, were protected by small shields, and carried long knives at their side. There were some who feared that they would become dangerous neighbours to the Franks. Theodoric accepted their aid, and the following day they stormed and burnt the town. A terrible battle ensued, without any definite result, and we are told that in it many of the Thuringians were killed and many wounded, while 6,000 of the Saxons perished. Irminfred then sent Iring, together with his treasures, to Theodoric, to offer his submission and sue for peace, and begging in abject terms for pity. "Your former relative, now your slave, sends to you," was the message; "if you have no pity for him, pity your sister, and your nephews and nieces." The envoys also warned him not to trust in the Saxons, who were indomitable in war, but to drive them away in time, and to ally himself with the Thuringians. Theodoric was moved by this address, and promised on the following day to receive his kinsman, and to cast off the Saxons. Iring was full of gratitude, and sent a messenger to tell his master of what had happened. Meanwhile, the city being once more at peace, there issued from it a person with a falcon, who wandered along the bank, seeking for game. Having let the bird fly, it was captured by a Saxon who was on the further bank, and who refused to return it. "Give it me," he said, "and I will divulge a secret to you, which will be useful to you and your people." "Speak," said the Saxon, "and you shall receive back what you are looking for." "The kings," he said, "have made a pact with one another. If to-morrow you enter the camp you will be captured or killed." "Surely," he said, "you are joking." "To-morrow will prove it, and you will see there is no sport in what I say; you had better seek safety in flight." The Saxon then returned the falcon, and told his companions (who were at a loss to know what to do) what he had heard. There was then among them an old soldier, who from his virtues was known as the father of his country: his name was Hathagot. Taking up the sacred standard, which consisted of the figures of a lion and a dragon, above which was a flying eagle, and signifying strength, prudence, etc., he addressed them, saying: "Hitherto I have lived among the best of the Saxons, and although an old man, I never saw the Saxons take flight, and yet I know not how to act now. One thing I know—I will

not fly. If fate so decrees it, it will be very grateful to me to fall with my friends. It is better to die surrounded by our friends than to be vanquished; to lose our lives rather than give way before the enemy. But why should I enlarge on contempt for death. We shall go securely; we shall attend a carnage, not a battle. Our enemies do not suspect that we know of their intrigue. To-day, weary with battle, they will be careless of security, and have no guards posted. Let us fall on them unawares, and when they are asleep. Follow me as your leader, and cut off this head of mine like a dog's, if it come not about as I say." Assenting gladly, they spent the rest of the day in preparation, and in the first vigil of the night, when men sleep most heavily, they climbed the walls, and entered the town. There, there was a panic; some fled hither and thither; and some, treating the Saxons as friends, joined them, but the latter killed all who were grown up, reserving the young people for slavery. A terrible slaughter it was. Irminfred, with his wife and sons and a few of the chief of the nobility, however, escaped. The victors then built a temple, planted the eagle at its eastern end, and having built an altar they raised a statue to Mars, which they fashioned in the shape of Hercules, in the place of the sun, whom the Greeks call Apollo (*loco solem*). This god they called Hermin, and Widukind compares his name with the Greek Hermes. For three days they feasted and rejoiced, and divided the booty, nor did they fail to laud the leader to whose sagacity they owed their success. This victory was afterwards celebrated on the 24th of October. Its result was, that Theodoric granted the Saxons their land, and they were styled the companions and friends of the Franks. Irminfred, after the capture of his city, sent Iring to Theodoric, to make terms. The latter urged him to assassinate his master, promising to reward him handsomely.

He undertook the duty, and while Irminfred was prostrating himself before Theodoric, he took the opportunity of decapitating him. Theodoric then reviled him, told him it was a base deed thus to slay his master, and that he was free to depart where he would, but he himself would have no part in the business. "I have earned the contempt of all men," replied Iring, "in that I have been the instrument of completing your crime; before I leave, however, I will purge myself by revenging my master." And he plunged the reeking sword in the body of Theodoric, who fell over the corpse of Irminfred (Pertz, iii, 423 and 424).

The narrative of Widukind is apparently derived from old songs or traditions, and seems to me to be very worthy of credit; we find it confirmed elsewhere. Thus the first part of the story is found also in the "*Annales Quedlinburgenses*," and there the mistakes of Widukind are corrected. As this fact seems to be

unknown to any of our writers it will not be amiss to transcribe the account there found. We are told then that in the year 532 Hugo Theodoric, the son of Chlovis by a concubine, on succeeding to the throne invited Irminfred, the King of the Thuringians, to his election. Theodoric, says this authority, was called Hugo, as all the Franks were styled Hugones, from a certain leader named Hugo. He was a great favourite with his father, and although a bastard was given an equal share in the division of the kingdom with his brothers Chlodimir, Hildebert, and Lothaire. "Irminfred" says this account, "urged on by his wife Amelpurga, refused the invitation, saying scornfully that Theodoric ought to be his wife's slave (Amalberga was the daughter of Chlovis, *sic* Witikind) rather than his king or master. 'Let him come first,' he said, 'with a large heap of money that he may buy his freedom from my wife, who was noble born by both parents.'" Theodoric was much enraged at this answer, and his grievance was shared by the Franks. "I will come," he replied, "as he bids me, and if my gold will not suffice to buy me liberty I will give thee an innumerable number of Thuringian and Frankish heads." Having accordingly assembled his army, he marched into the district of Maerstem (*i.e.*, the province in which Hanover is situated) and there defeated Irminfred with great slaughter. Following him up as far as the Ocker, he fought a second battle near Orheim, where he was again beaten, and where Theodoric, on account of his losses, deemed himself too weak to pursue him. But hearing that the Saxons, whose world-wide fame had reached him, had arrived in Hadeloha, he sent to ask for their aid and promised them and their twelve chiefs that if they overcame the Thuringians he would surrender to them all the land as far as the junction of the rivers Sala and Unstrode. The Saxons accordingly attacked the Thuringians, defeated them on the Unstrode, and then captured the town of Schiding (doubtless the place called Schenighe, *ad an.* 784), but Irminfred, with his wife and sons, and one named Iring, escaped.

Theodoric thereupon granted the Saxons all the Thuringian land, except Luvia (What is meant by this? Pertz suggests that the mountains of Southern Thuringia are meant) and the Hartz mountains without the payment of tribute. He commanded, however, the Thuringians who survived to pay the king a tribute of pigs. After this Theodoric basely ordered Irminfred to be put to death in Zulpiach (Pertz, iii, 31 and 32). This account and that of Witikind vary so much in their details that they are clearly not copies one from the other, and are evidently taken from a common ancient source, probably from some ancient poem, as Pertz suggests (*op. cit.*, iii, 424, note

25); and as Widukind himself hints in his phrase: "Si qua fides his dictis adhibeatur penes lectorem est. Mirari tamen non possumus in tantum famam prævaluisse, ut Iringis nomine, quem ita vocitant, lacteus cœli circulus usque in præsens ut notatus" (*op. cit.*, lib. 1, c. 13). It would be difficult to support any story of the 6th century by so much concurrent testimony as that here adduced for the colonisation of Nether Saxony; not only have we the independent witnesses of the author of the "Translatio Sti. Alexandri," of Widukind of the "Annales Quedlinburgenses," and of the correlative traditions of the Thuringians, but the whole story is in accord with the Frankish notices. There are some mistakes of detail, but they are such as rather confirm the *bonâ fides* of the narrative, as do the mention of other details which we can confirm; thus in regard to Theodoric having been the son of a concubine, the fact is attested by Gregory of Tours (ed. Guizot i, 97). He also attests the fact that the wife of Irminfred, the King of the Thuringians, was called Amalberga (*id.* i, 127), and that she was a truculent person and sowed discord in the Royal Family of Thuringia. He also tells us that a strife arose between Irminfred and Theodoric, and of the war which ensued between them; of the defeat of the former and of his suspicious death (*id.*, i, 131-135). Amalberga does not seem, however, to have been a daughter of Chlovis but the niece of Theodoric, the King of the Goths (Jornandes, ch. 58; Procopius, i, 14 and 15. Pertz' notes to "Annales Quedlinburgenses"), and it may well be that *her* father was named Hugo. But the best confirmation of the story is to be found in the laws and institutions of the Saxons. We find their community, as I shall show further on, divided into four classes, namely, the Ethelings or nobles, freemen, liti, and slaves. These liti were clearly very different to slaves, and an important wergild is assigned for offences against them. They were again on a lower footing to the Saxon freemen, and I have no doubt, as has been suggested by Mr. Stubbs, that they represent the coloni mentioned in the account of the "Translatio Sti. Alexandri," *i.e.*, the conquered Thuringians (*see* Stubbs's "English Constitution," 46, note 5). I have small doubt, therefore, that the Saxons invaded the Weser Valley about the time of the reign of Theodoric, and that before their arrival the greater part of Nether Saxony was occupied by the Thuringians. Whence did they come? The tradition already recited from the translation of Saint Alexander makes them emigrants from Britain. This is hardly admissible, but the mistake is very easily explained if they came from the Eastern Angeln and not from the Western England, and if one has been by mistake written for the other. Now it is very curious that

in almost the first contemporary notice of the Saxons in Nether Saxony they are called Jutian Saxons. This occurs in a letter addressed by the Frank King, Theodebert, the son of Theodoric (534-548) addressed to the Emperor Justinian, in which he describes some of the conquests of the Franks: "Subactis Thuringis . . . Wisigothis . . . cum Saxonibus Euciiis (Eutiis) qui se nobis voluntate propria tradiderunt usque in oceani litoribus, custodiente Deo, dominatio nostra porrigitur" (Zeuss, 387).

This calling of the Saxons Jutes points to their having come from the Cimbric Chersonese, like the Angles, their compatriots, who were making about this very time their descents upon the English coast. Now Dahlmann, the historian of Denmark, has made the judicious suggestion that the cause of the migration of the Angles was the arrival of the Danes. It is curious that a very few years before the incidents already recited from the war between Theodoric and Irminfred took place, that we first meet with the Danes in the Frank chronicles. This was in the year 515. We are told the Danes went by sea to the Gauls with their King Chlochilaich (*i.e.*, Haveloc), and having landed they ravaged some of the land of Theodoric, making slaves of the inhabitants and carrying off much booty to their ships. They were about to return home with their king, who was the last to embark, when Theodoric sent his son Theodebert with an army. The Danish king was killed, the Danes were beaten in a naval fight, and the booty they had made was recaptured ("Gregory of Tours," ed. Guizot, i, 126 and 127). It is very probable that the onward movement of the Danes and the subsequent settlement of the Nether Saxons were not unconnected, and that the latter people, like the Angles, were pushed out of their old quarters in Jutland by the new comers, the Scandinavians or Norse people, who now appear for the first time. I see no reason to doubt this, and it at once explains their migration and points also to whence it came from.

It would seem that for some time the Saxons were confined chiefly to the Weser Valley, and it was on the Weser that their early struggles with the Franks chiefly took place. Theodebert died in the year 547, and was succeeded by his sickly son Theodebald, who died in 553, and he in turn was succeeded by his great uncle Chlothaire, known as Chlothaire the First. The change of rulers had apparently induced the Saxons to revolt, and we are told Chlothaire marched against them and destroyed a great number of them. He also severely punished the Thuringians for having assisted them ("Gregory of Tours," i, 177). This was apparently in 554. Shortly after, the Saxons having remained obdurate and refusing to pay tribute, he again marched against

them. When he arrived on their frontier they addressed him, saying: "We do not defy you, nor do we refuse to pay you the tribute we paid to your brothers and nephews. We will do so if you demand it, but we ask you to leave us alone in peace." He was satisfied with these words, but his followers insisted that the Saxons were liars, who ever broke faith. The Saxons returned and offered one-half of what they possessed, but in vain; they then offered their clothes, their herds, and all they possessed, saying: "Take these things, and also one-half of our lands, only leave our wives and children free, and do not attack us." Chlothaire would have readily listened to them, but his people would not hear of it, and even ill-used him and threatened to kill him if he refused to march at their head against them. In the fight which ensued there was a terrible carnage, and the Franks were beaten and constrained to beg for peace (*id.*, 184-186). Chramn, Chlothaire's son, now proved rebellious, and took refuge with Childeburt, Chlothaire's brother. The latter incited the Saxons to invade the Frankish territory. They accordingly marched as far as Deutz, opposite Cologne, and committed great ravages there (*id.*, 191). This was apparently about the year 555; Chlothaire afterwards succeeded in reducing the Saxons once more to obedience, and imposed upon them a tribute of 500 cows (Möller, *op. cit.*, 36, note 93).

Chlothaire's empire was divided among his four sons. During their reign the war with the Saxons continued. On the part of the Franks it was doubtless largely a defensive war, for the Saxons were very aggressive. They now seem to have appropriated the northern part of Thuringia, included in Ostphalia. We read in the panegyrics of the poet Fortunatus, how Lupus, the general of Sigebert, fought against the *Danes* and Saxons, and drove them from the Wapper to the Lahn (Perry's "History of the Franks," 130). This mention of the Danes is remarkably coincident with the migration of the Angles from Schleswig, to which I hope to refer in another paper. The Merovingian empire was now the scene of terrible civil strife, which was the natural opportunity of the Saxons. The annalists of the empire, as Möller says, when they mention the Saxons, generally as under the year 602, report battles in which there was not much victory to boast of (*op. cit.*, 36, note 95). At length we find the Frank Empire once more united in one hand, namely, that of Chlothaire II. It was during his reign, and in the year 622, that the Saxons prepared for another great invasion of the Frank territory. Chlothaire's young son, Dagobert, had been appointed King of Austrasia. We are told the Saxons marched against him, whereupon he crossed the Rhine to meet them. In the battle which followed, Dagobert was struck on the head, and a

portion of his hair was cut off. Picking it up, he gave it to his knight (armiger) and bade him go to his father with it, and summon him to his assistance. The messenger found Chlothaire in the Ardennes, whence he hastened to the assistance of his son. They joined their forces and encamped on the banks of the Weser. Berthoald, the Saxon chief, was beyond the river, and ready either to fight or to make peace; Chlothaire, mounted on a swift horse, entered the River Weser, and was imitated by Berthoald, while the Franks followed at the heels of their king. "Retire," said Berthoald, "for if you defeat me, people will only say you have beaten your slave Berthoald, while if I win the victory, they will say everywhere that the mighty king of the Franks has been killed by his slave;" but Chlothaire, clad in his armour feared not, rushed at his foe, cut off the head of Berthoald, and held it aloft. The Saxons were defeated, their land laid waste, and those of the male sex who were grown up were slaughtered. Chlothaire then returned home again (*Gesta Reg. Francorum* Bouquet ii, 567-568, and 583. Reginon, ad an. 572; Pertz, i, 551, Möller, *op. cit.*, 37). Such was the barbarous warfare carried on between the two rival and mutually bitter races. The Saxons were again reduced to pay tribute. Ten years later, Dagobert, who had succeeded his father, remitted the tribute of 500 cows on consideration that the Saxons would protect the eastern frontier of the empire from the Slaves, who were continually threatening it. A pact, we are told, was sworn by the Saxon chiefs, on a number of arms, as was their wont (*Fredegar*, Bouquet ii, 441). Under the year 635, we find a Saxon chief named Agino fighting in the Frankish army against the Vases or Gascons (*Fredegar*, Möller, note 98).

Chlovis, Dagobert's son, we are told, married a Saxon named Bathildis (Möller, *op. cit.*, 38, note 99).

The empire was now rapidly growing weaker, and the Saxons gradually pushed their borders further west towards the Rhine, nor were they more than temporarily checked by the campaigns fought against them in 687 and 691 by Pepin of Heristal, the Mayor of the Palace to the *roi fainéant*, Theodoric III. It was probably, as Möller says, at this time that the three Saxon divisions of Westphalia, Engern, and Eastphalia arose.

Pepin of Heristal and Dagobert III. died in the year 715, and the former was succeeded as Mayor of the Palace by Charles Martel, his bastard son. His accession was a stormy one, and the Saxons took advantage of matters to invade the districts inhabited by the Hattuarii, within the Frankish empire. These districts they ravaged and advanced as far as the Rhine (Möller, 39, note 101; Pertz, i, 6, 7).

In 718, Charles Martel marched to punish them. They with-

drew behind the Weser, and he proceeded to devastate their country terribly; there is a grim completeness about the phrases of the Annalist: "Eorumque terra usque ad Viseram fluvium incendiis, rapinis, interfectionibus attrita est" (Chron. Fontan. Bouq. ii, 659). He repeated his attacks in the years 720, 722, 725, and 738, each time apparently harrying the Saxon land, while the Saxons themselves escaped with little hurt, save the loss of their property (Möller, 40, note 103). Their real strongholds beyond the Weser remained untouched, and that river formed a defence which Charles did not venture to cross.

The war was again renewed in 737, after he had acquired his surname of Martel in his struggle with the Saracens in Spain, when the Saxons having been again troublesome he advanced along the Lippe, and compelled them to pay tribute, and to give hostages (Fredegar, Bouquet ii, 456). The peace which was thus exacted was maintained until his death in the year 741.

The dominions of Charles Martel were divided between his sons Carloman and Pepin, and we again find the Saxons turbulent. They were clearly still widening their borders, and we are told they made an attack upon Thuringia. Carloman sent an army against them, which was accompanied by Geroldus, the Bishop of Mayence, who was killed in the battle which ensued (*Vitæ Sti Bonifacii ab Othlone, acta Sanctorum, ord. S. Bened. 2, Sæc. III, p. 28; Möller, 41*). This was in 743. In the struggle which Carloman had the same year with the Bavarians, we read that he was assailed by the Saxons, Alemanni, and Slaves (Möller, *op. cit.*, 41). Having subdued the Bavarian duke, Carloman marched against the Saxons and captured their fortress of Hochseburgium (the modern Asseburg, near Wolfenbüttel; Möller, *id.*). He advanced as far as the Weser, subduing the Saxons on the route. Theodoric, one of the Saxon chiefs, was surrendered as a hostage, and having sworn obedience was released (*Annales Laur. and Einhardt, ad an. 743; Pertz, i, 134 and 135; Annales Mett., id. 327; Reginon, ed. 555; Möller, 41*).

In 744, Theodoric again rebelled. Carloman and his brother Pepin again marched against him, and compelled him to submit with many of his people, many of whom were again baptised (*Annal. Laur. and Einhardt, ad an. 744, etc. Appendix ad Gest. Franc., p. 573; Möller, 42*). In 747, Carloman resigned his power and retired to Italy, and Pepin remained sole Mayor of the Palace. He was an imperious person, and we find that in the same year Gripho, a natural son of Charles Martel, fled from him with a body of troops, and having been joined by a number of Saxons collected his forces on the river Ocker, near Orheim. Pepin marched against him and traversed that part of

Thuringia occupied by the Nord-Suevi, *i.e.*, the eastern part of Ostfalen, where he was joined by a great body of Slaves, and encamped at Schoening in Brunswick (Ann. Laur. and Einhardt, ad ann. App. ad gest. r. F. Bouquet ii, 575; Möller, 43). Hochseburg was again taken, and Theodoric for the third time captured, while the submission of the Saxons who lived next the Suevi was accepted. Pepin then marched to the Ocker, where, by the intervention of the Saxon chiefs, a peace was arranged. A number of the Saxons were again baptized, while Gripho, who suspected his Saxon friends, fled to Bavaria. The Saxons were not long in again rebelling and relapsing into paganism, and we find Pepin again marching against them in 753. A terrible battle was fought at Iburg, in the diocese of Osnaburgh, in which Hildegard, the Archbishop of Cologne, was killed (Annal. Laur. and Einhardt, ad an. 753, Pertz, i, 138 and 139. Ledebur Krit. Beleucht., etc., 58). The Franks were, however, victorious, and advanced as far as Remen on the Weser, near Minden, compelled the Saxons to give hostages, and also insisted that their missionaries should have full liberty to spread the faith in Saxony and to baptize (Möller, 44, and note 113).

Pepin had to return once more to Saxony in 758; there he advanced as far as Sithen, between Dulmen and Haltern on the Stever, or perhaps, as Pertz thinks, as far as the River Sende. He defeated the Saxons, captured several of their fortifications, compelled them to pay an annual tribute of 300 horses, and subdued their country as far as the Weser (Annal. Laur. and Einhardt, ad ann. 758; Möller, 45). We are told the terms of the peace were ratified "*more Saxonico*" (Annales Einhardt, Pertz, i, 141).

This peace was more lasting, and we do not hear that Pepin fought again with the Saxons during his reign, which ended in 768. Pepin left his kingdom to his two sons, Carloman and Charles, the former of whom died in 771, leaving his brother sole King of the Franks. He had a great desire to convert his pagan neighbours, the Saxons, and also to widen the borders of his kingdom, and accordingly commenced a very unjustifiable campaign against them. It was determined, we are told, at a diet held at Worms in 772, to make an attack upon the Saxons. Crossing the Rhine, Charles attacked their stronghold of Ehresburgh (probably the modern Stadtberge on the Diemel). This was captured, as was also the pagan sanctuary of Irminsul, which was destroyed. Ledebur places this among the mountains of Osning and Egge, between the towns of Horn, Lippspring, Dringenberg, and Driburgh, among well watered valleys (Möller, *op cit.*, 74, note 118).

During three days that the Franks were encamped there

there was a very intolerable heat, and the springs became dried up ; but according to the chronicles a torrent miraculously burst forth, and the army was relieved. The matter-of-fact Ledebur identifies this torrent with a spring called Bullerborn, near Altenbecken, which is intermittent, flowing for six hours, and then drying up for a similar time (*id.*, note 118). Charles now set out for the Weser, and persuaded the Saxon chiefs and grandees there to allow Christianity to be taught within their borders, and also received twelve hostages from them. The tribute which they had formerly paid was apparently not insisted upon, inasmuch as it is not mentioned (*Annales Laur. and Annales Einhardti*, Pertz, i, 150 and 151). He then returned home, and set out, at the invitation of Pope Hadrian, to assist him against Desiderius and his Lombards. When the Saxons heard that he had gone so far away, mindful of their ancient liberties, and incited by those who were still pagans, they drove out the Christian priests and invaded the district of the Hattuarii, by which no doubt the modern Gau of Hatterun is meant. This invasion took place in 715, and was doubtless connected with the dispersion of the Boruchtuarii, to which Bede refers in the following passage. Speaking of Saint Suidbert he says: "Non multo post ad gentem Boructuarorum secessit, ac multos eorum prædicando ad viam veritatis perduxat. Sed expugnatis non longo post tempore Boructuariis a gente antiquorum Saxonum dispersi sunt quolibet hi, qui verbum receperant" (*Mon. Hist. Britt.* 259). These Boruchtuarii were doubtless the inhabitants of the Gau of Borohtra, between the Lippe and the Ruhr, and we thus get a date for the Saxon conquest of the southern part of Westphalia.

They tried fruitlessly to capture the fortress of Buriaburg (now represented by Mount Bierberg, on the right of the Eder), and also tried in vain to destroy the church of Fridislar, close by, which had been consecrated by Saint Boniface, who had prophesied it could not be burnt. The former, according to the annalists, was protected by the arrival of an army of the indigenes, the latter by two angels. Meanwhile, Charles having destroyed the Lombard kingdom, had returned to Ingelheim, and there heard how the Saxons were ravaging the Hessian gau. He sent four armies against them ; three of them won victories, while the fourth returned with a large booty, and the Saxons at length retired homewards (*Annales Laur. and Egin.*, ad an. Pertz, i, 152 and 153).

In 775, Charles again crossed the Rhine with a large army, and captured the fortress of Sigiburg, which Ledebur fixes at the ruins still called Hohensyburg, near the junction of the Lenne with the Ruhr. This he did not destroy, but fortified

more skilfully and put a garrison into it. Thence he advanced to Ehresburgh, which he had overturned in a former campaign. He restored its fortifications and also put a garrison in it, and went on to Brunesburg (near Huxar on the left bank of the Weser), whose neighbourhood he ravaged. Crossing the river, he again defeated the Saxons, and leaving a force at the ferry, he advanced into the interior of the Saxon land. At the Ocker, the former boundary of the Thuringians and the Saxons, the nobles of Ostphalen, with Hassio, their leader, submitted, gave hostages, and promised to be faithful to the Franks. Charles then went to Bukki (Bückeberg, between Obernkirchen and Rodenberg, in Engern), and there received the submission of the Angrians, of whom Bruno was dux or chief. He then marched on to the Elbe, which he was, however, prevented from crossing by an outbreak of the Westphalians, who had attacked his garrison on the Weser. He accordingly hastened back again. This garrison had been planted at Lübbkia, on the Weser, where a pact had been made with the inhabitants. One evening when the Franks had gone out to get provisions, and were returning, several hundred Saxons (who, as I have said, were then their friends) were mixed up with them, and were helping to carry the goods with their acquiescence, when they attacked them unawares, slaughtered a section of them, and drove the rest from the fortress. Charles thereupon returned to Westphalia, where he revenged his people in a serious fight, and again compelled the Saxons to give hostages (Annales Laur. and Annales Einhardt, Pertz, i, 154 and 155).

Having, as he thought, subdued this revolt, Charles again repaired to Italy to punish the rebel Lombard chief Rotgaud. The Saxons accordingly used their opportunity and attacked the garrison which Charles had placed at Ehresburgh, enticed it into an ambush, and then slaughtered it and levelled the fortifications with the ground. They attempted a similar policy with the troops at Sigiburg, but warned in time by some fugitives from Ehresburg, they defended themselves bravely. The Saxons used a kind of primitive artillery for casting stones, and made an onslaught on the garrison. The Franks thereupon sortied by the gate, and attacked the besiegers unexpectedly in the rear. The Saxons were panic-stricken, and fled as far as the Lippe, leaving many of their men in the retreat. The Lorsch annals tell us they were struck with panic by the appearance of two shields of flaming red, which were suspended in the sky over an adjoining church. Charles having captured and put to death Rotgaud in Italy, returned homewards, recalled by the danger of the Saxon invasion. He

held a diet at Worms, and determined to make a fresh attack upon the continual disturbers of the peace. He again entered their land, laid it waste, and captured its fortresses. He advanced as far as the sources of the Lippe, where many of the Saxon chiefs, with their wives and children, willingly submitted and were baptised. Having restored the fortress of Ehresburgh, he built a new one on the Lippe, which Pertz fixes at the site of Lippstadt (*Annales Laurissenses et Einhardti*, Pertz, i, 156 and 157; Möller, note 138). The following year, namely, in 777, he advanced with a large army as far as Paderborn, famous for its fertile and beautiful situation, whence, according to the Poeta Saxo, "its ancient barbarous name" (Pertz, i, 233; Möller, note 139). There he assembled the Saxon chiefs and freemen, who renewed their oath of fidelity, and it was agreed that if any of them should afterwards fall away either from his Christian profession or allegiance, that the offender should forfeit his liberty. The most redoubtable of the Saxons, however, was not present. He was a Westphalian, and was named Witikind, and we are told that, conscious of his many offences, he fled with some of his companions to Sigfred, the King of the Northmen (*Annales Lauris. et Einhardti*, Pertz, i, 156; Eginhardt, *id.*, 559; Poeta Saxo, *id.*, 233). Witikind, it is clear from the way in which he is mentioned in the annals of Lorsch, had already greatly distinguished himself, although he is not mentioned distinctly by name until the year 777. From his retreat and vantage ground he now continued his exertions against the old foes of his people. After the meeting at Paderborn, Charles had gone off to the other end of his dominions to oppose the Saracens. When the Saxons heard of this, incited by Witikind and his companions, they broke out again into rebellion and advanced, plundering as far as Deutz on the Rhine, sparing neither age nor sex, says Eginhardt, so as to prove that their campaign was one of vengeance, and not a mere raid (Eginhardt, *Annales*, ad an. 778). They burnt the churches in Hesse and Thuringia, and we are told the monks of Fulda fled in terror with the bones of Saint Boniface. This was in 778 (*Annales Laurissenses*, ad an.; *Annales Fuldenses*, Pertz, i, 349; Möller, note 141). Charles, on hearing of this invasion, despatched a force against the Saxons; the Poeta Saxo says he ordered the Alemanni and Eastern Franks to march against them, and followed himself in all haste. The Saxons now prudently withdrew, retiring through the Lahngau to the Eder with their booty. They were overtaken at a place called Lihesi on the latter river. The Poeta Saxo calls it Baddonfeld. The Saxons were defeated with considerable loss and retired homeward. The approaching winter prevented further pursuit

(Pertz, i, 158 and 159, Kruse, Chron. Norm, 8; Möller, 54 and 55).

The next year Charles crossed the Rhine near the outfall of the Lippe, and advanced to Bochalt on the Aa, ravaging the country *en route*. Having been defeated, the Westphalians again made terms and gave hostages. He then went on to the Weser and planted a fortress at Medo-fullium, or Mittel Fuhlen (which Ledebur identifies with Fuhlen near Oldendorf, on the left bank of the Weser), and received the submission of the Ostphalian and Engrian nobles. Having retired again, at the approach of winter, he once more entered the Saxon land in the following year. This time he marched by way of Ehresburgh to the sources of the Lippe, and thence went on to Orheim beyond the Ocker, where the inhabitants of the Bardengau and many of the Nord Liudi, or Saxons beyond the Elbe, were baptised; then advanced to where the Orum falls into the Elbe, near the site of Wolmirstadt, where he planted a garrison and settled the affairs of the Saxons and Slaves (Annales Laur. and Einhardt, Pertz, i, 160 and 161; Kruse, *op. cit.*, notes 14 and 15). Saxony was now incorporated with the empire and was divided into parishes and dioceses. In 782 a diet was held in the Saxon country, near the sources of the Lippe, which was attended by all the Saxon grandees, except Witikind and his companions, who had fled to the Northmen. Charles had scarcely returned home when that uneasy patriot again stirred up his countrymen to rebellion. Charles not knowing of this outbreak had sent three of his officers, namely, his Chancellor, Adalgis, his Marshal, Gailo, and his Count of the Palace, Worad, to punish the Sorabi, who had invaded the Frank territory. They marched with an army of Eastern Franks and Saxons, and were joined by Theodoric, a relative of Charles, who headed a section of Ripuarian Franks. Hearing, on the way, that the Saxons had rebelled, they turned aside and fell on them. Witikind and his people were planted on the mountain called Suntal, near Hausberg, whilst the Franks were posted on an adjoining mountain. Theodoric was first sent on to explore, but the three officers, fearing that he might gain the credit of the victory, hastily attacked the Saxon fortress. They sustained, in consequence, a severe defeat. Adalgis and Gailo, with four Counts and twenty nobles, were killed, while only a few escaped over the mountains to the camp of Theodoric. The Saxons do not seem to have prosecuted their victory, and Charles having assembled his force, marched to exact a terrible punishment from his treacherous neighbours. He advanced to the place when the Eder falls into the Weser, and there summoned the Saxon chiefs. They laid the blame upon Witikind, but Charles was too much afflicted by the loss of his officers and

people to retire this time without a due punishment; 4,500 of the ringleaders and leaders of the revolt were doomed to death and were executed in one day at Verden on the Alar (*Annales Lauris*, etc., Pertz, i, 162-165; Möller, 57-59; Kruse, 16 and 17), a punishment which, notwithstanding the gibes of Zeller and others, we cannot deem excessive for the persistent treachery of the Saxons. It did not, however, have its due effect, and perhaps instigated the survivors to further revenge. We accordingly find them assembling the next year, *i.e.*, 783, at Detmold, under the command of Witikind, when they were severely defeated. Charles retired to Paderborn to await reinforcements, and then advancing again won a second and more decisive victory on the banks of the Hase near Osnabruck. This fight, according to some, lasted for three days, and was very fiercely contested, and was a great disaster to the Saxons. Charles crossed the Weser and advanced unopposed to the Elbe, laying waste the country, the miserable inhabitants sheltering themselves in the forests and beyond the Elbe. The Emperor returned home once more for the winter. The indomitable Saxons were not yet crushed, and next year we again find them rebelling; this time in conjunction with some of the Frisians. Charles accordingly again advanced to the Weser, near Huculvium (the Modern Petershagen, formerly called Hockeleve; Pertz, i, 166). He was prevented from going directly northward by the floods of the Weser. Leaving, therefore, a division, under his eldest son, to look after the Westphalians, he made a detour southwards towards Thuringia, and thence on again to the country of the Elbe and the Saale, and reached Stagenfurt (*i.e.*, Steinfurt on the Ohre, as Ledebur has argued; Möller, *op. cit.*, 60, note), and thence went to Schœning. Most of the Saxon chiefs, however, fled, and the land he laid waste was largely deserted by its inhabitants. After this march he again returned to Worms. Meanwhile, the Westphalians had attacked the division of the younger Charles in the Gau of Dragini (Hertfeld, Lisborn, Werne, and Kappenberg are situated in this district; Pertz, i, 166, note 91). They were defeated by him, but not subdued, for we find him repairing to Worms for aid. Charles, the Emperor, thereupon determined upon a very unusual course with him, namely, upon a winter campaign. He spent Christmas near Schieder, on the Ambre, and then went on to Rimi at the junction of the Weser and the Werra, where his march was obstructed by the inundations and the severity of the weather. He thereupon went to Ehresburgh and distributed his army in winter quarters in the neighbourhood. He made several attacks on the Saxon strongholds during the winter (Möller, 61). Having spent the spring at Ehresburgh, during

which time he rebuilt it, and also built the Basilica there, he summoned the Saxon and Frank chiefs to a diet at Paderborn (Chron. Moiss., Pertz, i, 297; Kruse, *op. cit.*, 22).

This was in 785. At this diet, according to Pertz, was issued the first capitulary relating to the Saxons, which is extant. The first five clauses enact punishments for offences against the Church. The 1st decrees that the Christian churches shall be as duly honoured as the pagan fanes were wont to be. The 2nd is as to violation of sanctuary. The 3rd decrees that any one entering a church and stealing from it, or setting it on fire, shall suffer death. The 4th decrees death to those who wilfully and without leave eat flesh during the Long Fast. The 5th, a similar penalty for any one who kills a bishop, priest, or deacon. The 6th clause has a very curious sound, and provides that if, according to the manner of the pagans, any one should deem a man or woman to be a witch and to eat men, and shall consequently burn him or give his flesh to be eaten, or shall eat it himself, he is to be put to death. The 7th decree enacts that any one burning the corpse of a dead person, after the manner of the pagans, shall be put to death. This shows that the Saxons of Nether Saxony, while yet pagans, were, like the later Danes, in the habit of burning their dead. The 8th, that if any of the Saxons shall hide away and refuse to be baptised, he shall suffer death. 9th, If any one shall sacrifice a man to the devil and so invoke the devils (*i.e.* the pagan gods) in his sacrifice, he shall suffer the same penalty. 10th, Death was to be the punishment of any one conspiring with pagans against the Christians, or their King. 11th, So if any one was unfaithful to the King (*i.e.*, the Frank King). 12th, Or if any one carried off his lord's daughter. 13th, Or if any one killed his lord or lady. 14th, But where the criminal repaid to the priest and willingly made full confession, the punishment of death was, on the request of the priest, to be remitted. 15th, In regard to lesser enactments, the Saxons consented that each pagus or village should give to the Church a dwelling and two farms, and for each 120 men, including nobles, freemen, and liti, to give to the same Church a manservant and a maid. 16th, On the payment of any dues to the State, a tenth part was to be handed over to the Church. 17th, It was ordered that all classes, nobles, fræmen, and liti, should give a tenth of their labour and income to the Church. 18th, No assemblies or public meetings were to be held on Sunday, but, unless kept away by urgent business or the attacks of the enemy, the Saxons should repair to church on Sundays and festivals to hear the word of God and have leisure for good works, and to pray. 19th, All infants were to be baptised before they were a year old; in case of omission without permission, a noble

was to pay 120 solidi, a freeman 60, a litus 30. 20th, Any one making an illicit marriage, within prohibited degrees, should pay, if a noble 60, a freeman 30, a litus 15 solidi. 21st, Any one offering gifts to fountains, or trees, or groves, or offering anything in the manner of the Gentiles, or eating in honour of the devils, should pay, if a noble 60 solidi, a freeman 30, a litus 15, and if he had not wherewith to pay, he must give the value of the fine to the church in labour. 22nd, *The bodies of the Christian Saxons were to be buried in the cemeteries of the church and not in mounds.* 23rd, Diviners and soothsayers were to be handed over to the priests. 24th, If thieves and malefactors fled from one comitatus to another, and any one sheltered them for seven nights, except in order to hand them over to justice, he should pay the prescribed fine; and if a count was party either to their escape or to their concealment without good reason, he should forfeit his office. 25th, In regard to mortgage, no one was to presume to pledge another on pain of being put under the ban. 26th, Any one preventing another from going to obtain justice should be put under the ban. 27th, If any man should not be able to find a surety, his goods should be put under the ban (forbanno) until such a surety was forthcoming. If he presumed to return home notwithstanding, besides his debt he should pay 10 solidi or an ox in order to clear his ban. If his surety should fail to appear on the appointed day, he himself should forfeit as much as his principal would have done. If the principal, however, should fail to his surety, he should forfeit double the fine which he had permitted the surety to incur. 28th, If any received gifts or premiums against the innocent he should be put under the ban, and if a count he should forfeit his office. 29th, The counts were to use their efforts to prevent strife and warfare, and if quarrels broke out among them they were to remit the matter to another court. 30th, If any one killed a count, or was privy to his death, his goods should be forfeited to the king and he should be tried. 31st, Authority was given to the counts to fine people within their jurisdictions, in greater causes to the extent of 60 solidi, in lesser ones to the extent of 15 solidi. 32nd, If any one was under an obligation to make oath to another, he must do it on the appointed day at the church, and if he refused he must give security and pay 5 solidi. 33rd, Perjuries were to be treated according to the Saxon law. 34th, It was forbidden to the Saxons to hold any general public meetings, unless summoned by the king's messengers or missi, but each count should do justice and settle causes within his own jurisdiction. The priests were to take notice of this.

After holding the diet where this capitulary was issued, Charles crossed the Weser, and entered the Bardengan, where the

Saxons performed their usual comedy of giving hostages, and of being baptised. Witikind, Albion, and some other chiefs fled beyond the Elbe. Charles now sent an invitation to them to make peace with him, but as they were unwilling to return without some protection, he agreed, by the intervention of Amalvinus, to give them some Franks as hostages. Having returned to Attigny, he was followed there by Witikind and Albion, who were there baptised. So important was this victory deemed that Charles specially refers to it in a letter to his contemporary, Offa of Mercia, and the Pope ordered the event to be celebrated by three days of solemn processions throughout western Christendom. It is noteworthy that in his letter to Offa Charles calls the Saxon chief Withmund and not Witikind. The former is certainly in form more like a Saxon name, while Witikind, the Whiteboy, seems to favour the statement of an old Saxon poet, who tells us his name was changed at his baptism from Nickheim to Witikind (Kruse, *op. cit.*, 5).

According to the ancient chronicles of Brunswick, Witikind married the sister of Sigfred, the King of the Northmen, who was called Geva, by whom he had two children, a son named Wipert, and a daughter Hasala, who married Berno, one of the twelve Ethelings of the Saxons, who had fled with Witikind when he went to Denmark. The same authors tell us these twelve Ethelings ruled over the land of the Saxons, and when there was war, they met and elected one of their number as their king. After the war was over he returned to his original status. Witikind was nominated as king in his way, and when Charles made peace with him, he created a dukedom of Saxony, and appointed Witikind to the post, while the rest of the Ethelings he made lords and counts (Kruse 4-5).

This is chiefly from the chronicle of Botho, written at the end of the 15th century, but it is apparently founded on original information. The baptism of Witikind seems to have effectually pacified the Saxons for some time to come.

In 789 Charles, after holding a council attended by the Franks and Saxons, traversed Saxony and went beyond the Elbe to receive the submission of the Wiltzi. We are told that Saxons, Franks, and Frisians formed his army on this occasion (Pertz, i, 174).

In 793, when Charles was engaged in his war against the Avaes, Count Theodoric, doubtless the Theodoric already named, went among the Frisians to get a contingent of men. He had led a body of Frisians and Saxons in the Avar war of 791. For some reason or other we find the neighbouring Saxons breaking out into rebellion, and attacking him in the Gau of Riustria, dispersing his troops, destroying many churches, and

treating their priests with indignity. Charles accordingly marched against them; he went himself at the head of one army, which advanced through Thuringia, while his son Charles headed another. The Saxons were assembled at Sendfeldt, near Wunnenberg. Finding themselves threatened on two sides, the latter made terms with the Frankish king, and swore to become Christians, as they had often done, "and the king believed them," says the impatient chronicler, and gave them priests (Pertz, i, 302).

According to the Chronicon Moissiac, they thought that the Avars wished to liberate themselves, and accordingly disclosed their own hidden views. "Like dogs returning to their vomit," says the annalist, "they returned once more to their paganism, and allying themselves with the pagans in their neighbourhood, they also sent envoys to the Avars, rebelling first against their God and then against their king; they devastated the churches in their neighbourhood, cast out the bishops and priests, and killed those whom they could lay hands upon, while they returned once more to their idolatry" (Pertz, i, 299).

Permanent peace with the Saxons was impossible so long as the country beyond the Elbe, the resort of so many refugees, remained unsubdued. Accordingly Charles determined the following year, namely, in 795, upon a more vigorous policy in his direction. He went to the borders of the Elbe to Bardenwic, and summoned the Obodriti, a Slavic race which lived beyond that river, to send envoys. Their king, Witzan, seems, *inter alios*, to have gone, but as he was returning he was waylaid by the Saxons beyond the river, who probably deemed this coquetting with their enemy, and was killed. Charles now began a new policy towards the Saxons, and we are told he transplanted one-third of them within the Frankish borders. The Fulda annals date this in 794, but the other authorities put it in 795 (Kruse, *op. cit.*, 29-30.) Those transported were probably some of the principal people, and in the Annales Xantenses, the number so moved is put down at 7,070 men (*id.*, 29). They were not settled in one place but in various localities, as in Haspania, the modern Haspengau, Hennegau, Belgia, and Bamberg (*id.* 30).

In 796, while his son Pepin was fighting the Avars, Charles, suspecting an outbreak among the Saxons, marched into their country. He received hostages (apparently from the Westphalians) in the district belonging to the monastery of Dragini, now Raghlin (Kruse, 30; Moller, 64), and crossing the Weser at Leese, he entered the district of Wigmodia, the modern Wümmegau, between the Lower Elbe and the Weser. There the inhabitants were submissive, and he once more returned to "Francia." The following year he again advanced into

Wigmodia, which was then probably occupied by Frisians; he captured the fortress of Wihmuodi, and went as far as Hadeloh, the maritime tract between the estuaries of the Elbe and Weser. Having again taken hostages, he once more returned to Aachen (Kruse, 31). He held a diet there in October, which was attended by Saxons, from all parts, *i.e.*, Westphalians, Angrians, and Ostphalians, and a Saxon capitulary was issued in which it was agreed that for all offences in which Franks were to pay a fine of 60 solidi, that Saxons should be mulcted in a similar amount, while for lesser offences in which Franks were fined 15 solidi, Saxons were ordered to pay 12 for nobles, 5 for free-men, and 4 for liti.

Various clauses provide fines and wergilds (wargida, they are here called): 1. In cases where they were tried at home, *infra patriam*, the pagus was to receive 12 solidi as a wargid. 2. If the cause was tried, according to the custom, before one of the *missi regalia*, besides the wargid, a second similar amount was to be paid to the missi. If the cause, however, was remitted to the palace to be tried before the king, nothing was to be paid to the pagus, but the royal exchequer was to receive 24 solidi. 3. In case the litigant should not be satisfied with the judgment of the country, and a second appeal had to be made to the king, and if he adjudged that the missi were right, then the fine was to be 24 solidi. 4. If he came before the appellate court a second time, 48 solidi, and in case of a third trial the fine was to be tripled. 5. If any should disdain to attend the diet, he should be fined, if a noble 4 solidi, a freeman 2, a litus 1. 6. If any one did a wrong to a priest or to his servants he must repay twofold. 7. In case anyone (? anything) should be destroyed by the missi of the king, threefold restitution should be made as according to the Saxon Ewa, and so if anything was done by their men. 8. No one out of mere spite or enmity against another was to burn his property, unless in case of a persistent rebel who refused to do justice, and upon whom it was impossible to distrain otherwise, and refused to go before the king's court to have the question tried out there; in such case, a meeting was to be summoned of the pagus, then if they decided unanimously, his house was to be burnt according to the Ewa. (This word is explained in a gloss to the Corbey MS. as meaning "law," Pertz, *Leges* i, 170.) If any one dared to commit arson except for this reason, he was to pay 60 solidi. 9. If the king should desire in greater causes, etc., to inflict a heavier fine, then with the consent of the Franks, and the faithful Saxons, it was to be lawful to double the fine of 60 solidi, and to inflict penalties of from 100 to 1,000 solidi. 10. In cases of malefactors who, according to the Saxon Ewa, were liable to capital punishment, and who fled

to the king for protection, it should be lawful for him either to return them to their people for punishment or with their consent to outlaw him, his family, and his goods, and he was then to be held as if he were dead. 11. In assessing the value of a solidus among the Saxons, it was noted that for each solidus there should be paid a yearling beast of either sex in the condition it was in the autumn when sent into the stable. As it grew during the spring, after it came out from the stable, and during the summer its value was also to increase. Other provisions regulated the value of the solidus in measures of grain or honey.

In a capitulary issued in 801, at Ticino, it was ordered that in all causes between Franks who obeyed the Salic law, the solidus was to be counted as worth 12 denarii, but in all contentions with Saxons and Frisians the latter were to pay the Franks, if they lost their suit, after the rate of 40 denarii to each solidus (Pertz, *Leges*, i, 85).

In the spring of 798 Charles made another incursion into Saxony. He went with his "comitatus" or court, and spent Christmas at the place where the Diemel falls into the Weser. He founded a fortress there, which he ordered to be called Heristelle, while he scattered his army in winter quarters in various parts of Saxony (Möller, 66, note 190). With the warmer weather he advanced farther east. The Saxons beyond the Elbe, who had not yet felt his arms, had put some envoys whom he had sent to them to death, and had also slain Godescalcus, an ambassador who had been sent to Sigfred, the Danish King, and whom they waylaid on his return.

The trans-Albingian Saxons were apparently assisted by those living between the Weser and the Elbe, for we find Charles, after crossing the Weser at Minden, where he placed a garrison, laying waste that part of Saxony which lay between the Weser and the Elbe (Eginhardt, *Annales*, Pertz, i, 185; Kruse, 32).

The Saxons beyond the Elbe being elated by their recent raid upon the Imperial envoys, now made an assault upon the Obodriti, the faithful friends of the Franks. The Obodriti, under their King Thrasco, were posted at Swentina (probably the modern Bornhovet, formerly called Swentinefeldt, on the River Swentina which separated the Saxons and Obodriti). The struggle was a very severe one, and Eburis, the representative of Charles at the Court of Thrasco, reported that the Saxons, who were defeated, lost 4,000 men (Eginhardt *Annales*, Pertz, i, 185; Kruse, 32). The Slaves sent to report their victory to Charles, by whom they were duly rewarded. He then, having again taken hostages, returned home again (Kruse, 33). In 799 Charles held a great diet at Paderborn, where he built a splendid church. It was while

staying there that he received the fugitive Pope Leo the Third, whom he promised to support, and who subsequently crowned him as Emperor of the West. From Paderborn he sent an army under his son Charles, to the Elbe to arrange matters with the Obodriti and to compel the obedience of the trans-Albingian Saxons, after which he returned home again. In 802 we find him sending another army to ravage the country of the trans-Albingian Saxons (Kruse, 36).

The Saxons were now, however, finally subdued, became tractable subjects of the Franks, and were apparently governed by Witikind.

From the account of the translation of Saint Alexander we learn that Witikind was succeeded as their chief by his son Wibrecht (*i.e.*, Wibert) and he by his son Waltbraht (*i.e.*, Walbert), who is specially commended to his son Louis by the Emperor Lothaire in a letter quoted in the same life, in which he requests him to wed a Saxon of noble birth, and calls him his faithful vassal, *fidelis vassalus noster*.

In another letter written to Pope Leo he speaks of the Nordalbingian Saxons as "Gens in partibus nostri regni Saxonum scilicet et Fresonum commixta in confinibus Nordmannorum et Obodritorum sita, quæ evangelicam doctrinam jam dudum audierat et acceperat, sed propter vicinitatem paganorum ex parte firma in religione constat et ex parte jam pene defecta" (Transl. St. Alexandri, Pertz, ii, 676-677).

In the account of the translation of Saint Pusinna we are told that the two famous Saxon monasteries of Corbey and Heriford were founded in the reign of the Emperor Louis, *i.e.* Louis the Pious (*id.* 681). Under the year 841 we read in the *Annales Xantenses* that the Saxon slaves (*Servi*) rose against their lords and gave themselves the name of Stellinga. They committed great ravages and their lords were much persecuted (Pertz, ii, 227). Nithard, who probably wrote his history between 841 and 843, in which last year he was killed, tells us that when Lothaire was fighting against his two brothers, the Saxon nobles were divided into two factions, one taking his side and the other theirs. Lothaire incited the subjects of Louis the German to rebellion and *inter alia* he promised the frilings and the lazzi in Saxony, who were very numerous, that if they would side with him they should have the ancient laws again which had been current when they were still idolaters. Incited by this promise they banded together, called themselves Stellinga, and drove their lords or ethelings away (Pertz, ii, 669). They were suppressed by Louis but again broke out in rebellion and were again put down (*id.* 670 and 671).

This mention of the three estates of the Saxons by Nithard

reminds me that the author of the "*Translatio Sancti Alexandri*" has some curious details about them which I have not yet quoted.

We are there told that although the Saxons were turbulent in their foreign politics and aggressive against their neighbours, that at home they were quiet and peaceable. He says they were proud of their blood and would not marry either with inferiors or with strangers. They were large in stature and of fair complexion. Their society consisted of four classes: Nobles (*nobili*), freemen (*liberi*), *liti* (he calls them *liberti*), and slaves. These classes did not intermarry, but the individuals of each married with those of their own class (thus forming castes, like the people of India). An incongruous marriage, according to the biographer, was punished with death. He also praises their laws. They worshipped some who were not deemed gods, among whom the chief was *Mercurius* (*i.e.*, Woden) to whom on certain days they offered human sacrifices. They did not house their gods in temples, nor did they deem any human form sufficiently great and dignified to represent them. They had sacred groves, to which they gave the names of their gods, and in which they worshipped. They practised divination. This was of a simple character. Having cut off a branch of a fruit-bearing tree, they cut it into twigs and scattered them on a white cloth at random; then, if it was a public consultation, the priest of the nation, if a private one, the father of the family, having prayed to the gods, took up three of them and interpreted them according to some test previously fixed. If the omen was unfavourable they would not prosecute their purpose further that day. They also consulted the cries and the flight of birds, and also the neighing of horses, which they deemed the most valuable augury of all. Before they engaged in war they tested the result in another way. Having captured, if possible, one of the enemy, they chose one of their own people to fight him and judged of the result of the coming battle by the success of either champion in this duel. They respected certain seasons, as the waning and waxing of the moon. They worshipped in groves, and, *inter alia*, a large trunk of a tree exposed to the sky, which they called *Irminsul*, meaning the Universal column, as if it supported the universe (Pertz, ii, 675 and 676).

I will conclude with a short survey of the religious revolution in Saxony, by which it became converted to Christianity. The first who converted any of the Saxons was Saint Faro. In 621, envoys went to Chlothaire the Second, from the Saxon chief Berthoald, who in jeering and insulting terms renounced their master's allegiance to the Franks. Chlothaire, who was highly indignant, wished to put them to death, but Saint Faro

persuaded him to put off their execution till the following day. The envoys were thrown into prison, where Saint Faro repaired at night and converted them to the Christian faith. The following day, when they were to have been executed, he begged that the new converts might be sent home (*Vita Sti Faronis Acta Sanctorum*, Bouquet iii, 504). We next read how Saint Eligius redeemed many of the Saxons who had been made prisoners by Dagobert, and then converted them to the faith (*Vita Sti Eligii ap Acher. t. v. Spic. 156*; Möller, *id.*).

We must next speak of Saint Wilfred, Archbishop of York, who on his way to Rome in the year 677 was shipwrecked on the coast of Frisland, and spending the winter there, held some services. Saint Egbert, having heard from him that the Frisians and Saxons were still pagans, sent one of his priests to Frisland, who spent two years trying in vain to teach the Frisians. Soon after this, Egbert sent Saints Willibrord and Suibert with twelve other priests to Frisia. Among the latter were two brothers named Ewald, one with white hair and the other black, whence they were known as the White and the Swart. Bede tells us they were Englishmen, and had been exiles in Ireland. They went to the land of the old Saxons, says Bede, and were well received by the head man of a village. They asked him to introduce them to his superior, the governor of the province, whom Bede calls a satrap, and who doubtless answered to our English Ealdorman. Bede adds, in reference to this officer, a curious note confirming what I have already adduced from another source; he says there was no king among the old Saxons, but only satraps set over different provinces, who in times of peace had equal jurisdiction, but in time of war they elected one of them as their over-chief (*i.e.*, their imperator), who was deposed again to his former rank on the return of peace.

The missionaries told the reeve, or village chief, that they had something important to communicate to his master, and he accordingly detained them a few days in his house. Secure there, as they thought, they spent their time in prayer and psalmody, offering daily to God the sacrifice of the Saving Victim, for which purpose they had brought with them the sacred vessels and a portable altar (Bede, *Mon. Hist. Britt.*, 258; Lingard, *A. S. Church*, 233.) Afraid that they might influence the satrap, and seduce him from his old faith, the Saxons seized on the missionaries and put them to death on the 3rd October, 695. When the Ealdorman arrived, he had the murderers executed and the village burned. Various miracles are reported by Bede as having been performed by their bodies, which were at length buried at Cologne by the Frank king, Pepin (*id.*).

Saint Boniface, who well earned the title of Apostle of Germany, after working for some time among the Frisians, settled on the borders of the Hessians and old Saxons at Amanaburg on the Ohm, and made many converts. In 732 he received the pallium at Rome and was authorised to found Episcopal sees, and was also appointed papal vicar over both Gallic and German bishops. In 744 he founded the famous Monastery of Fulda, and eventually established several sees in Germany.

One of the earliest apostles of the Saxons was the Saint Lebuinus already quoted. He was an Englishman by birth, and a *protégé* of Saint Boniface. We are told he and his companion Marcellinus landed at Utrecht and proceeded to Wilp, near Deventer, on the Isel, and having converted many thereabouts, he crossed that river and planted a small church beyond. The pagans, however, speedily excited by his work, set upon, burnt, and destroyed his buildings and did much damage to his little colony of converts. He himself, however, was protected by the local chief. Hearing that the Saxons were about to hold their annual meeting at Marklo, he determined to repair thither. Meanwhile, he lived with a chief of some importance, who tried to persuade him not to go on with his work, as he feared for his life. He nevertheless insisted upon attending the gathering, which was made up of a great multitude of people from different quarters. As the assembly was about to begin with the usual sacrifices, he raised his voice against the sacrilege, and, if we are to believe his biographer, spoke out bravely and eloquently against idolatry. They were greatly enraged, and would have quickly made a martyr of him, but we are told he was miraculously preserved; whereupon, one of their chiefs named Buto, standing upon an eminence, addressed them, saying they were wont to receive and listen respectfully to the messages of the envoys of the Northmen, Slaves and Frisians, and now when God's own ambassador brought them a message they were going to kill him. They thereupon desisted and allowed him to go about freely where he liked. He does not seem to have been very successful, however, and apparently retired from Saxony, and died, and was buried at Deventer (Pertz, ii, 361-364).

In Hucbald's "Life of St. Lebuinus," written between 918 and 976, we have some curious details of the Saxons. He also tells us they were divided into three classes: *edlingi* (nobiles), *frilingi* (ingenuiles), and *lassi* (serviles). This information he probably derived from Nithard. He tells us further that each *pagus* was governed by its own chief. At a certain time in each year there were elected from these *pagi*, and also from the three orders,

twelve men who assembled together at a place near the Weser, called Marklo (which is identified by the editor with Markenah in the district of Hoya near the Heiligen loh, *i.e.*, the sacred wood) and Adelshorn. There they discussed the public weal according to the prescribed rules. One of these councils, as I have said, was attended by Lebuinus (Pertz, ii, 361 and 362.)

Another of the *protégés* of Saint Boniface was Saint Sturm, who became Abbot of Fulda. In the year 777, after the great diet held at Paderborn, a great number of Saxons, partly by compulsion, partly by persuasion, and partly by gifts (*i.e.*, bribery) consented to become Christians, and not long after, Boniface divided their land into parishes and sees, and appointed Saint Sturm and his monks to evangelize it. They proceeded to build churches and to demolish idols and groves. The following year the Saxons drove out these priests and advanced to the Rhine, as I have mentioned. Sturm and his monks fled with the remains of their saint, and returned only on hearing that the invaders had been driven back. In 779, Saint Sturm, who was then a feeble old man, was ordered to repair to Ehresburgh and to settle there, but he was already on the edge of the grave and died almost directly. This was in 779 ("Life of St. Sturm," Pertz, ii, 376-377).

We now find another Englishman undertaking the work: this was Saint Willehad, who was sent by Charles into the more northern districts of Saxony, *i.e.*, Wigmodia, where his mission was very successful in making converts, building churches, and ordaining priests. This was in the year 781.

The following year, as I have mentioned, Witikind broke out in rebellion, and Willehad and his companions were driven away and the converts suffered terribly. Willehad repaired to Rome.

In 785 we find him with Charles at Ehresburgh, who gave him the living of Valesio Mont Julin, in Upper Burgundy. He then again returned to Wigmodia, where he busied himself in his work and restored the churches which had been destroyed. This was followed by the submission and baptism of Wittikind himself, and in 787 Saint Willehad was consecrated as a bishop at Worms, and his diocese was constituted from the districts of Wigmodia, Lorgoe, Reustria, Asterga, Nordendi, and Wanga. He thus became the first Bishop of Bremen, where in 789 he dedicated its cathedral to Saint Peter. He died the same year (*Vita Saint Willehadi*, Pertz, ii, 380-383). About this time Charles also caused the church of Saint Peter at Minden to be built, and appointed Hercumbert to take charge of it.

I have now completed this part of my story, in the course of which I hope I may have brought together a good deal of matter new to English students, and certainly not to be found in any English work accessible to me. I hope, also, I have succeeded in showing, what is a very important conclusion for ethnographers, philologists, and historians alike, that Grimm and his school of German writers were entirely wrong in deducing the Saxons from the old Kheruskans, that the Old Saxons, like the Saxons of England, were immigrants, and that they only occupied the Valley of the Weser and the districts of Nether Saxony in the 6th century.

ANNUAL GENERAL MEETING.

JANUARY 27TH, 1880.

EDWARD B. TYLOR, Esq., D.C.L., F.R.S., *President, in the Chair.*

The notice convening the meeting was read.

The minutes of the last Anniversary Meeting were read and confirmed.

The Treasurer's Financial Statement was read and adopted on the motion of Mr. HORNIMAN, seconded by Mr. A. L. LEWIS.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.

Receipts and Payments for the Year ending 31st December, 1879.

RECEIPTS.				PAYMENTS.			
	£	s.	d.	£	s.	d.	£
BALANCES, January 1st, 1879:	57	1	5				130
At Bankers'							0
In Clerk's hands	15	8					0
SUBSCRIPTIONS:							
Paid to Roberts and Co.	53	11	0				
" Collector	120	0	0				
" Life Composition ..	21	0	0				
" due 1878	54	12	0				
" in advance	5	5	0				
Illustration Fund	55	1	8				
Sale of Gorilla	2	0	0				
" Duplicates of Periodicals and Books from Library ..	30	0	0				
" Old Stamped Cheques	7	10	0				
SALE OF PUBLICATIONS:							
Messrs. Trubner and Co.:							
Journals	69	11	8				
Messrs. Longmans and Co.:							
Publications of the Institute	1	14	2				
Office:							
Journals	2	19	0				
Other Publications	11	12	10				
	85	17	8				
RENT, one year to September, 1879							
PRINTING:							
Journal, balance of No. 24 (1878)				2	4	11	
" Nos. 25, 26 (1878), and 27 (1879) ..				143	16	0	
Miscellaneous				12	7	4	
LITHOGRAPHY:							
Enslie, to December, 1878				9	13	3	
Enslie, Kell, Sandford, and Stanford ..				57	8	6	
PHOTOGRAPHY:							
Wright							
SALARIES:							
Clerk	71	4	6				
Assistant Secretary	45	0	0				
Office Boy	6	9	0				
Collector's Commission	27	13	1				
POSTAGE:							
Journal	12	18	0				
Letters, Circulars, and Post Cards	16	11	6				
Book Parcels	0	17	8				
ADVERTISING:							
Street, to December, 1878	2	11	0				
" November, 1879	7	18	9				
From Petty Cash	0	2	0				
	10	11	9				

Mr. BOUVERIE PUSEY and Mr. RANGER were appointed scrutineers of the ballot, which was declared by the President to be opened.

Mr. F. W. Brabrook, F.S.A., Director, read the following report.

*REPORT of the COUNCIL of the ANTHROPOLOGICAL INSTITUTE of
GREAT BRITAIN AND IRELAND for 1879.*

THE Institute has held fifteen ordinary meetings, and one anniversary meeting during the year. At the ordinary meetings the following communications were read :—

1. On a Revised Nomenclature of the Inter-Oceanic Races of Man. By the Rev. S. J. Whitmee.
2. On Koitapu, Motu, and Neighbouring Tribes of New Guinea. By the Rev. W. G. Lawes.
3. On Resemblances between a Galtcha and a Savoyard Skull. By Dr. Topinard.
4. On Circumcision : Its Significance, its Origin and Kindred Rites. By M. Elie Reclus.
5. Customs of Australian Aborigines. By Captain W. E. Armit.
6. The Australian Aborigines. By Mr. D. Macallister.
7. The Primitive Human Family. By Mr. C. Staniland Wake.
8. The Colour of Skin, Hair, and Eyes. By Mr. E. W. Brabrook, F.S.A.
9. The Geographical Distribution of Games. By Dr. E. B. Tylor, F.R.S.
10. The Native Races of Arctic Siberia. By Mr. H. Seebohm.
11. Rock Carvings found near Sydney. By Sir Charles Nicholson.
12. On the Mummy of a Papuan, from Darnley Island. By Prof. W. H. Flower.
13. Rag-bushes and Kindred Observances. By Mr. M. J. Walhouse.
14. Trellech. By Mr. F. G. Hilton Price, F.G.S.
15. Analogies of Manners between the Indo-Chinese Races and the Races of the Indian Archipelago. By Colonel H. Yule.
16. On Relationships and the Names used for them among the Peoples of Madagascar, chiefly the Hovas ; together with Observations upon Marriage Customs and Morals among the Malagasy. By the Rev. James Sibree, Jun.
17. The Ethnology, Mythology, and Philology of Races of Early Culture, Babylonians, Etruscans, Egyptians, Japanese, &c. By Mr. Hyde Clarke.
18. On some Irish Antiquities. By Mr. A. L. Lewis.
19. On Fetichism. By Mr. Hodder M. Westropp.
20. On the Kabi dialect of Queensland. By Mr. J. Matthew.
21. On some Cornish and Irish Prehistoric Monuments. By Miss A. W. Buckland.
22. Facts about Japan and its People. By Mr. C. Pfoundes.
23. On the Osteology of the Natives of the Andaruan Islands. By Prof. W. H. Flower.
24. On Palæolithic Implements from the Valley of the Brent. By Mr. Worthington G. Smith.
25. On Portstewart and other Flint Factories of the North of Ireland. By Mr. W. J. Knowles.
26. Kemp How, Cowlam. By Mr. J. R. Mortimer.
27. On some Eskimo Bone Implements from the East Coast of Greenland. By Mr. W. J. Sollas.

28. On the Bheel Tribes of the Vindhyan Range. By Colonel Kincaid.
 29. On the Relations of the Indo-Chinese and Inter-Oceanic Races and Languages. By Mr. A. H. Keane.
 30. On Ancient Arithmetical Progress, exemplified by Roman numerals.
 31. The Turcomans between the Caspian and Merv. By Prof. Vambéry.
 32. On Australian Marriage Customs. By Mr. J. Forrest and the Rev. Lorimer Fison.
 33. On Savage and Civilised Warfare. By Mr. J. A. Farrer.

Thirteen Ordinary Members have been elected during the year.

The Institute has lost through death: Mr. J. McDonnell, Mr. M. Munaret, Mr. R. S. Cunliff, Mr. W. D. Child, Mr. L. H. O. Woodd, Mr. S. Wood, Mr. J. Whishaw, Consul D. Hopkins, Mr. E. Conwell, Mr. Kirkman D. Hodgson, Mr. J. E. Harvey, Mr. W. Robinson, Mr. E. Backhouse, Mr. Lestock R. Reid, and Professor Otto.

The former and present state of the Institute with regard to the number of Members are shown in the following Table.

	Honorary.	Compounders.	Annual Subscribers.	Total.
January 1st, 1879 ..	50	92	320	462
Since elected .. ..	..	..	+ 13	+ 13
Since deceased ..	-1	-4	-10	-15
Since retired .. ..	..	..	-14	-14
January 1st, 1880 ..	49	88	309	446

A few days after the last Annual General Meeting was held, intelligence was received that a bequest of £1,000 free of legacy duty had been made to the Institute by the late Mr. Sydney Ellis. He was the youngest son of the late Mr. E. S. Ellis, Chairman of the Midland Railway Company, England, and was born at Leicester on December 12th, 1850. He was educated at Brighton, and afterwards at Tottenham, and was distinguished in his own family for his devotion to science, particularly chemistry and geology, besides taking great interest in all questions of anthropology. He joined the British Association at the Belfast Meeting in 1874, and we are informed that he generally attended exclusively the sittings of the Department of Anthropology, though he never became a member of this Insti-

tute. He regarded anthropological pursuits and studies as the true method of unravelling the origin and development of man. As an active member of a large manufacturing firm engaged in worsted spinning, he had under his care a great number of work people, of various ages and both sexes, and he spent much of his leisure time in conducting evening classes for the adults in his employ, personally instructing them in the rudiments of physical and natural science. The Ellises are a very old family, and have been connected with the county of Leicester for many years, the grandfather of Mr. Sydney Ellis having been the originator of the second railway line in the United Kingdom. Mr. S. Ellis was an active member of the Literary and Philosophical Society of Leicester. He died 26th October, 1877, from the accidental inhalation of poisonous gas, while engaged in a new and original investigation into the composition of ferro-prussiate of potash. Stooping over the vessel in which the experiment was being made, a sudden evolution of gas took place, it was inhaled and produced immediate syncope, which resulted in death, his condition not being discovered by his friends in time. *Some years before* his death he had made his will, in which, besides the £1,000 to this Institute, he had left similar sums to the Royal, Chemical, and Geological Societies.*

The Council have invested this sum, with a small addition out of current income, in the purchase of £1,000 4 per cent. Metropolitan Board of Works stock. The Institute is therefore, for the first time, in possession of invested funds, besides its valuable Museum, Library, and saleable stock of publications.

The Library has been enriched by the bequest of the Dictionaries and Grammars belonging to the late Sir Walter Trevelyan, Bart., among which may be mentioned a copy of Bayle's Dictionary in five folio volumes; Boyer's Royal Dictionary; Ruskin's Lexicon Islandicum: Sercinus' English and Swedish Dictionary; Simon's Hebrew and Chaldee Lexicon; Wolff's Danish and English Dictionary; in all 49 volumes.

The other donors to the Library are:—

M. Elie Reclus; the Royal Geographical Society; the Royal Society; Mr. Serjeant Cox; the Editor of "*Revue Scientifique*"; the Editor of "*Revue Internationale des Sciences*"; the British Association; the Editor of "*Matériaux pour l'Histoire de l'Homme*"; the Editor of "*Revue d'Hygiène et de Police Sanitaire*"; Dr. Paul Broca; the Asiatic Society of Bengal; J. Park Harrison, Esq., M.A.; F. V. Dickins, Esq.; the Royal Historical and Archæological Association of Ireland; the Royal United Service Institution; Prof. W. Manz; the Editor of "*Verhandlungen des Vereins zur Beförderung des Gewerbflusses*"; the Royal Asiatic Society; the R. Accademia dei Lincei, Roma; the Imperial Academy of Sciences, St. Petersburg; M. F. Force, Esq.; the Geologists'

* The biographical particulars have been kindly furnished by Mr. Jas. Plant, F.G.S., of Leicester.

Association; Dr. W. F. Hoffmann; the Editor of "Nature"; the Literary and Philosophical Society of Liverpool; the Royal Academy of Science, Amsterdam: the Anthropological Society of Russia; Prof. A. Ecker; the Royal Institution of Cornwall; Herr Moriz Benedikt; Dr. Gustav Oppert; La Société des Arts et des Sciences, Batavia; La Société d'Anthropologie de Paris; The Editor of "Index Medicus"; the Asiatic Society of Japan, M. Gustav Edouard René Calmettes; the Anthropological Society of Berlin; the Editor of "The Science Index"; the Social Science Association; the Society of Antiquaries; the Royal Academy of Copenhagen; V. Ball, Esq., M.A., F.G.S.; Edward S. Morse, Esq.; La Société de Borda a Dax; the Natural History Society of Palermo; the Royal Geological Society of Ireland; J. T. Thomson, Esq.; Dr. Paolo Ricardi; A. H. Keane, Esq., B.A.; W. Pengelly, Esq., F.R.S.; Miss A. W. Buckland; Dr. G. Nicolucci; E. W. Brabrook, Esq., F.S.A.; the Anthropological Society of Vienna; the Canadian Institute; the Peabody Museum; the Government of Victoria; the State Board of Health of Massachusetts; Prof. Hayden, M.D.; the Smithsonian Association; the Central Ohio Scientific Association; United Service Entomological Commission; the American Association for the Advancement of Science; the Imperial Society of Naturalists, Moscow; the Editor of "The American Antiquarian"; the India Office; the Royal Colonial Institute; Prof. Gustav Retzius; the Royal Society of Tasmania; Association Française pour l'avancement des Sciences; the Society of Biblical Archæology; M. Kaltbrunner; W. T. Marchant, Esq.; H. Rivett-Carnac, Esq.; R. Roberts, Esq.; the Society of Arts; the Leeds Philosophical and Literary Society; the Academy of Sciences, Krakow; the Manx Society; the Editor of the "Athenæum"; Physico-ökonomische Societät, Königsberg; S.E.M. le Président de la Commission Impériale Archéologique, St. Petersburg; Prof. Agassiz; the Editor of "Bulletin de Mouvement Social"; the Royal Society of Literature; the Editor of the "Revue Belge de Numismatique"; W. Sharpe, Esq., M.D.; the Council of the Royal College of Surgeons; the Royal Society of Victoria; the Society of Biblical Archæology; the Devonshire Association for the Advancement of Science; Dr. Julius von Haast; Francis Galton, Esq., F.R.S.; M. le Vicomte Fleuriot de Langle; M. Paul Topinard; Morton Edwards, Esq.; the Editor of "The American Antiquarian"; the Council of the City of Manchester Public Free Library; Colonel H. Clinton; the Philosophical Society of Glasgow; the University of Tokio, Japan.

Mr. W. G. SMITH moved and Mr. C. S. WAKE seconded the adoption of the Report.

The PRESIDENT then delivered his Annual Address:—

Before reviewing the past year's work of this Institute, I take the opportunity of calling your attention, for purposes of comparison, to the state of Anthropology in England as it was about a generation since. The early Journals of the "Ethnological Society of London," our ancestral body, give an interesting view of the then aspect of the problems we attend to. Dr. Prichard's "Anniversary Address for 1847" is particularly valuable in this respect. From the survey it contains of physi-

cal anthropology, to which Prichard was himself so eminent a contributor, we see that the ground of Craniology was still in great measure held by Camper's rule of the facial angle, and Ethnology had not come much beyond Blumenbach's division of mankind into five races—Caucasian, Mongolian, American, Ethiopian, and Malayan. We need only glance at our own recent journals to realise the vast progress since made, not only in cranial measurement and classification, but in the comparison of the bodily varieties of man as to stature, proportion of limbs, colour and other characters of eyes, hair, &c. As to the general theory of the origin of races, for which these observations serve as data, there lies between Prichard's time and ours the period of popularity and decline of the Polygenist doctrine, with its schemes of dividing man into a number of separate and independent races. It is only justice to this doctrine to remember the excellent effect it had in inducing the careful discrimination of race-varieties of man, though it did not furnish satisfactory means of accounting for their existence and distribution. The Polygenist theory was effective in preparing the way for the doctrine of Evolution now so widely prevailing, which, by regarding races as divergent varieties settled into comparative permanence, meets the problem of the existence of different races more rationally than could be done by the old Monogenist theory, hampered as this was by the insuperable difficulty of deriving all the races of mankind from a single stock within a very short period of time. The Lamarckian scheme of development does not seem to have had much hold on our early ethnologists. It was reserved for the Darwinian theory to raise the great physical problem of Anthropology to its present state, which is indeed far from being final, but which is making perceptible progress every year, as the effects of intermarriage of races, and their change under altered conditions of life, are more accurately recorded and compared. Next, as to the argument from languages as bearing on questions of race and nationality, the beginning of the new period of comparative philology is already apparent in Dr. Prichard's address. The establishment of the Aryan and

Semitic families of language had set on foot right methods of investigating languages in general, with reference at once to their roots and affixes, and to the mode of grammatical combination or structure by which words and sentences are built up from these elementary materials. In the comparison of languages for anthropological purposes, the influence of Wilhelm von Humboldt was especially observable, leading students to discard the old rough-and-ready method of inspecting meagre lists of words in quest of similarities, and to begin with careful analysis of the languages in question as the first step toward their systematic comparison. As years have gone on this analytical method has been worked more and more closely. As a test of the improvement in this respect, we may remember how readily it used to be assumed that all the native languages of America were of one formation. What marked difference and individuality in fact exists among them, may be well seen in the recent studies in which Mons. Lucien Adam compares the structure of sixteen American languages, ranging from rude hunting tribes of the northern lakes, to civilized nations of Mexico and Peru. There is an observation made by Dr. Prichard in another place which even more strongly marks modern progress in the linguistic part of anthropology. So learned an Indian scholar as Colebrooke appears to have supposed all the languages of India to have been derived from Sanskrit, being nothing else than degraded or corrupted Prakrits, or popular dialects of that ancient speech. To think this, was of course to confound with the Aryan languages the great Dravidian family of which Tamil and Telugu are prominent members, and which, both in material and structure utterly different from the Aryan, have now been elaborately discussed, especially in Caldwell's well-known Dravidian Grammar. At the time I am speaking of, near the close of Prichard's career, new linguistic knowledge was pouring in to the aid of anthropology. It is interesting to find mentioned as novelties, facts which with us have passed into the realm of commonplace, such as that the Sanskrit of the Veda " is said to be a dialect much more ancient

than the classical Sanskrit, or the language of the Indian poems," and that the Persian legend of Jemshid in the Shah Nameh is based on more ancient mythology of the Zendavesta. Among the events of this time whose effects are to be traced in the future history of our science, was the notable appearance at the British Association at Oxford of Baron Bunsen, busy forcing on the educated world the claims of Egyptian chronology as proving to what remote antiquity even written record carries back man's history. With him came a younger German scholar, Max Müller, destined to give a new impulse in England to philology, which had somewhat hung back since the great step made by Sir William Jones in the Indo-European field. Through the work of a new school of comparative philologists, we again hold our place well in the linguistic studies which bear on the tracing and determination of races. Lastly, we may notice in Dr. Prichard's addresses the appearance of Prehistoric Archæology in its infancy. It seems strange to us to find it still treated as an open question whether the round-headed race whose relics are found in the early Stone-age barrows of northern Europe may have been Kelts. Anthropologists now hardly doubt the justness of the then new views of Retzius and Nilsson, that these mounds were the burial-places of rude tribes who inhabited our own and neighbouring countries long before they were invaded by the comparatively highly-civilized Keltic nations who now more or less distinctly survive in Ireland, Wales, and Brittany. Dr. Prichard, we must remark, was quite alive to these views of the great Scandinavian anthropologists as to the kinship of the broad-skulled men of the burial-mounds with some Tartar race like the Lapps. One way in which this idea took shape in his mind is so curious that I must quote it here. In connection with the statement that in many parts of Western Europe, the sepulchral remains of the oldest and most barbarous class of inhabitants display a type resembling that of the round-headed Tartar race, he is led to connect it with the presence, in English story, of the personified Scythians of the Bible, Gog and Magog. His remark is :

“If these facts should be fully determined, we may find hereafter that the old British legend of Gog and Magog is at least true in a mythical sense.” Lastly, in Prichard’s time, I need hardly say, it was a novelty to appeal to geological evidence as bearing on human history. He indeed expressly says in his 1847 Address: “The history of mankind is not destined, like the facts on which geology is built, to be dug out of the bowels of the earth,” &c. But in his Address for 1848, delivered shortly before his death, our ethnological founder saw reason to speak in a different tone, as follows: “The barbaric age of Scandinavia reaches back, according to Professor Nilsson, to the era of extinct animals, and to a period in which the surface of the earth was very different from what it has been since the commencement of historic times. Those ancient barbarians, the contemporaries perhaps of mammoths and mastodons, had skulls of a peculiar shape, and these skulls are found only in sepulchres containing implements of the rudest kind, made of stone, flint, bone, with ornaments of coral and amber.” Here we find plainly stated the notion of man’s presence extending back to a different state of the earth’s surface and fauna, although the Stone-age burial mounds are not yet put into their proper place in pre-history (if I may use the term). The touch about mammoths and mastodons, which so strikingly anticipates more modern knowledge, seems to be Prichard’s own. I need hardly say that the key to the knowledge of quaternary man had in fact been already found by Boucher de Perthes, whose first book had been published a year or two. But some years had to pass before his drift implements were accepted as evidence by geologists and archaeologists, and it came to be admitted that no unimportant part of human history was really that to be “dug out of the bowels of the earth.” It is fresh in our own recollection how difficult even professed antiquaries found it to accept these coarse implements as artificial at all. As late as 1862, I well remember the pitying smile with which the head of one of the great Continental museums of ethnography told me they did not trouble themselves with that sort of thing there.

Having thus compared the present state of Anthropology with its past as shown in the early days of the Ethnological Society of London, I think some remarks may be profitably made on the state of our science in Germany, as evidenced by the Berlin Society for Anthropology, Ethnology, and Primeval History. The "*Zeitschrift für Ethnologie*," in which its proceedings are published, began in 1869. Early in 1871 we find its President, Prof. Virchow, congratulating the Society that though so soon after its foundation the tremendous war began in which many of its members took part, they had kept up their meetings and publications, intent on prosecuting, under all circumstances, their civilizing mission. In that year they numbered 144 members. In 1878 this number had steadily risen to 420 (Honorary 4, Corresponding 80, Ordinary 336). It is evident from the list that these members belong in great measure to the technically scientific class, and regularly take part in the meetings. The President even thinks it worth while gently to admonish some members who had resigned because they could not attend the meetings; he points out to them that even if they cannot come themselves, their subscriptions are beneficial. In the organisation of this Society it is to be remarked that the Presidency is so far permanent that we always find it held either by the eminent biologist, Prof. Virchow, or by the not less eminent anthropological traveller and student of culture, Prof. Adolf Bastian. It is evident that the combined labour of these two able men during so many successive years has been a main cause of the solid success and regular growth of the Society. Its financial arrangements differ from ours. In return for their moderate subscriptions, the members receive the "*Zeitschrift*" and another slighter publication, the value of these being actually more than the sum they subscribe. Two remarks of Prof. Virchow explain how this is managed: "Even with close economy our own income does not suffice to cover expenses"—"Had we not the subvention of the Cultus-Minister we should have to furnish our reports very scantily." It appears that the society is also provided with rooms by the State. The

President quite justifiably refers to this Government grant as well earned by the scientific work done for the nation. To anthropologists in England the idea of an annual payment by the Minister of Public Worship to the Anthropological Institute hardly comes within the range of expectation, yet we may perhaps look forward to being some day properly housed by the State in recognition of the practical value of our work. It is fair to say that State aid has no perceptible effect in impressing a governmental bias on the utterances of the German anthropologists, who indeed only now and then enliven their more abstract inquiries by allusion to concrete politics, as in an occasional fling at Ultramontanism, or when more than usual warmth appears in retorts to Quatrefages' theory of the barbarous Finno-Slavic race-character of the Prussians.

The Berlin Anthropological Society deserves our admiration for the generally high standard to which its papers are kept up; indeed, there are remarkably few in the whole "*Zeitschrift*," whether papers read before the Society or independent articles, which do not add something perceptible to the stock of knowledge. has not been our own habit to give in our Journal any regular summary of the work of foreign anthropologists, though I think it would be to our profit to do so. Thus it may not be out of place for me to mention here a few of the later contributions from Berlin to questions which have also been under discussion among English anthropologists.

Special mention may be made of the issue (as a supplement) of Vol. I. of Hartmann's "*Nigritians*," a work of great excellence and industry investigating the African races both as to body and mind. The portraits given may be taken to prove the author's case that the Retu or ancient Egyptians are still racially represented with little change by a large proportion of the modern Fellahin, especially in the villages. And a considerable probability may be inferred from other sets of portraits for the larger theory that these ancient Egyptians, far from being, as is often supposed, Asiatic in race-type, are most nearly allied to the Berabra or Berbers of Nubia and North Africa. I confess that

the little I have seen of the Berbers in the neighbourhood of Tangier fits with this view that the Egyptians belonged to the North African race, a hypothesis which of course does not contradict the also sound opinion of an immigration from Asia, which is strongly represented in the Semitic race-element in the lower part of the Nile Valley, and to which Asiatic immigration we may not unreasonably refer the start of the Egyptian high culture. Race-classification by skulls has been the subject of much careful inquiry in the Berlin Society. Prof. Virchow's examination of American skulls tells, in his opinion, strongly against the doctrine of American unity of race, and in favour of the continents having been peopled by several immigrating populations, such as the North-Western tribes whose type shows such marked East Asiatic affinities. The use of the craniological argument, in spite of its extreme difficulty, is well shown by a study of Tyrolese skulls, as referable to the brachycephalic race who appear to have preceded the Teutons in South Germany. On the subject of the hair as a race mark, Dr. Fritsch, author of the great work on the South Africans, also contributes some criticism of Pruner's scheme of the hair-sections of various races, which seems on comparison with the observations of Götte and Hilgendorf to require some revision. Late German observations of the habits of anthropoid apes in captivity are of great interest. Among the most curious of ape-biographies is that of the chimpanzee Mafuka, who lived some while at the Zoological Gardens at Dresden. This creature's observation and thought were remarkably evidenced in such feats as stealing and hiding the key of her cage, which she could easily unlock, her taking away the carpenter's bradawl and boring holes with it through her own table, and the skill with which when pouring from a jug into a smaller vessel she stopped short of overfilling it. The last act before her death was wonderfully human; she put her arms round the neck of her friend Herr Schöpf, the director, kissed him, and then giving him her hand lay down and died. Turning to the department of Prehistoric Archæology, we find much atten-

tion paid to the remarkable "brand-walls" or "brand-hills," stone and earth structures whose surfaces have been exposed to the action of fire. These "vitrified forts," as we have long been in the habit of calling them, and of which a good account was published by Dr. Daniel Wilson in his "*Prehistoric Annals of Scotland*," were once supposed to be peculiar to that country, but it now appears that they are common in Germany, where the effect of the ashes of the wood-fires in their vitrification is again noticed, as it already had been by Wilson. How and why these curious structures were fired has not yet been clearly made out. Remains of ancient field-cultivation in places now bare or tree-grown, offer no such difficulty as to their nature, though much as to the precise race and date of the ancient tillers of the soil. It appears from several papers of the Berlin Society as to the German "high-fields" or "heathen-fields" (*hochäcker*, *heidenäcker*), that they correspond much in their situation on hills and wastes with the "elf-furrows" of Scotland, which popular mythology accounts for by the story of the fields having been put under a Papal interdict, so that people took to cultivating the hills. There seems reason to suppose that like the tilled plots in the Swedish forests which tradition ascribes to the old "hackers," the German heathen-fields represent tillage by an ancient and barbaric population. The prehistoric archaeology of Sicily, brought into notice years ago by the researches of Dr. Falconer, is the subject of an interesting account by Baron von Andrian, who attempts to trace by the human remains the earliest history of the island, from the appearance of paleolithic man in the quaternary period on the north and north-west coast, followed by the increase and wider spread of population during the neolithic period when obsidian comes into use as a material for implements. Lastly, as to the department of culture, particular mention may be made of Dr. Pietschmann's discourse on the development of the Egyptian religious system, with its great deities, from local fetish and animal worship. Primitive systems of marriage, as to exogamy and endogamy, are discussed by Prof. Bastian in one of his valuable ethnographical papers.

Dr. Kulischer, in a remarkable dissertation on sexual selection in primitive times, builds upon the well-known fact that some of the lower races of man have a pairing-time, like the lower animals. In the savage and barbaric world, this pairing-time is especially fixed in spring and autumn, as the seasons of returning warmth and plenty, when festivals are held in which a main feature is what may be compactly described as the courting-dance, which is practically part and parcel of the matrimonial system. It is no new idea that civilized dancing is in great measure the representative of the courting-dances of a ruder state of society; indeed, we all know this is the case even with the decorous dances of the modern ball-room. But what Kulischer brings prominently into view is the extent to which the primitive pairing-time, with its appropriate dances and revels, survives in peasant-life in Europe, especially in old districts such as Finland and Carinthia. It is not only in Brittany that the custom of the annual bride-show lasted, with the girls sitting on the bridge to be chosen; the bride-market held on Ascension Day at Kindleben, near Gotha, with the dance round the old linden-tree, is described as still to be seen. The same author's later paper on "Intercommunal Marriages by Capture and Purchase," contains much interesting detail. In concluding these slender remarks on the late doings of our fellow-workers of Berlin, I have one more point to mention: The "Phœnician Inscription" discovered on the coast of Brazil, which, although laughed at by all competent ethnologists, has been even of late gravely cited as historical evidence of the Old-World colonization of America, is finally disposed of by Dr. Burmeister's statement that its discoverer now admits he was hoaxed by a mischievous colleague, who forged it.

To turn now to the work of our own Institute. Our papers of the past year include in physical anthropology an account by Prof. Flower of "The Osteology of the Andaman Islanders," whose skulls show an extraordinarily constant type, distinguishing them from any other race. With frizzy hair of elliptical type like the Bushman, they combine black skin

like the Negro, and a brachycephalic skull which differences them absolutely from both. Prof. Flower's materials for study of the Andamaners surpass those of any former observer, and he sees reason to believe that in this remarkable people, whose peculiarities have furnished much description and illustration to our journals, we have a type of the extremely ancient race from whom the negroid races of both the West and East are derived. To the same anatomist we owe an account of a mummy from Darnley Island, north of Australia, which had the eyes filled up with gum and mother-of-pearl imitation eyes fixed on, the body having also been carefully eviscerated through an opening in the side in a way which reminds us of Egyptian practice. This specimen will furnish an argument on the side of those who contend that the continent was peopled with an Australian race in no such savage state as that in which the modern natives are found. Mr. Brabrook's contribution on the colour of skin, hair, and eyes, marks the unerring exactness with which both tint and texture are now recorded, even the Broca's scale of 42 colours being subdivided each into some 20 shades. I must, however, call the attention of the Institute to the fact that the strictly anatomical and physiological papers have been fewer than their proper proportion. Historical ethnology is represented this year by Mr. Wylie's extracts from ancient Chinese annals. In general description and classification of races and their culture, we have had several excellent contributions. The eminent traveller, Prof. Arminius Vambéry, in a paper on the Turcomans, has put forward these tribes as the best representatives of the Turks in general, having remained comparatively free from the intermixture which has broken up the identity of the Kirghiz, &c. Their forehead is less broad and flat, and the eyes less almond-shaped than those of the Turks of the north-east of Central Asia, proving the transition from Mongol, and in language, also, Vambéry maintains them to be representative. How far this is change of type, and how far intermarriage, does not come out clearly. Thorough nomades, lax in Mohammedanism, but true to older customs, they retain

strong relics of Shamanism, as in sacrifices to the Manes. Mr. Keane's paper on "The relation of the Indo-Chinese and Inter-Oceanic Races and Languages," is based on the existence of a fair race as well as the yellow or Mongoloid in the Indo-Chinese region. Given these, Mr. Keane proposes to account for the Malay as a mixed type varying toward either of these two primaries. This paper will no doubt be the cause of further discussion, and I would call the special attention of philologists to Mr. Keane's claim to use the Khmer language, of which a dictionary has recently been published, as a link connecting the polysyllabic languages of Asia with the Malay family. Further investigation must show whether the claim will hold. Other information bearing on this interesting problem drops in from various sources. Colonel Yule's paper on "Analogies of Manners between the Indo-Chinese Races and the Races of the Indian Archipelago," leans, as its title implies, rather on similar customs than other evidence—as the head-hunting, prevalent among the Nagas of Assam and the Dayaks of Borneo, the building of pile-houses and the great village-houses in both districts, etc. The use of concrete numeral terms in the Malay languages, as "three swing of boxes," "two post of gods," corresponds with that of South-East Asia, as in the well-known Chinese expression which is translated in Chinese English as "piece." A late letter from China to a European in pigeon-English contains the sentence: "Just now my No. 3 piecy wife makee die, my just now thinky must catchy nother piece." A slight contribution of my own bears on the same question, where in examining the "Geographical Distribution of Games," I have endeavoured to show that the Polynesians, before the time of European intercourse, had in some way obtained from Asia such sports as kite-flying, a kind of draughts, the childish sport of "cat's cradle," etc.; while Polynesian mythology, in the idea of heaven and the underworld being formed of several concentric spheres, possesses an ancient Chaldean doctrine which probably passed through Hinduism into the native religions of Polynesia as far as New Zealand. On the whole, the view of the Asiatic

origin of Polynesian race and culture seems strengthening. Mr. Hyde Clarke read a paper on "Ethnology and Philology of early Asia." In Asiatic ethnology I may further mention Colonel Kincaid's interesting "Account of the Bheels," and Mr. Macalister and Captain Armit on "Australian Aborigines." We may hope to obtain in a compact form the substance of communications verbally given by Mr. H. Seebohm on "Siberian Tribes." Dr. Hack Tuke's paper on "The Cagots," furnishes an interesting confirmation from the medical point of view of the judgment of De Rochas, that this interesting outcast race owes its contempt and isolation not to being of Gothic race nor heretic religion, but to descent from those unfortunates who were excluded from society as lepers.

Mr. Sollas has subjected to careful examination a set of Eskimo implements, among them the nail-like pins for fastening up the wounds of the struck animal, to prevent the escape of the blood, so much valued for food. In the history of civilization, Mr. Wake contributes a paper on the "Primitive Human Family," in which he criticises the views of M'Lennan and Morgan, himself leaning to the view that the original head of the family was the father, and thence paternal kinship the earliest, while he accounts for marriage by capture as done to avoid payment, thus placing it at a later stage than purchase. Mr. Wake will, I think, find his theory hard to maintain against the evidence of an early rude state of marriage law. This was never better put than in the passage from Nicolas Damascenus quoted by Bachofen, which describes the Galactophagi, "who are distinguished for equity, and have their goods and wives in common; therefore they call all the aged fathers, the younger men sons, and those of their own age brothers." Remnants of this old communal state of life seem to come before us in the Rev. Lorimer Fison's letter as to "Australian Marriage Customs," throwing light on the working of the system of class-marriage. It comes into view also in the Rev. James Sibree's interesting account of "Relationships in Madagascar," where the early indefiniteness of kinship is well shown by its being

needful to ask, when a father or mother is spoken of, "Do you mean the father who begot him, or only his uncle or stepfather?" and so with the mother. Clearly here is a remnant of family marriage like that of Nicolas's Milk-Eaters, and which, like the Madagascan orgies on "days not dead," that is, when no crime is punished with death, appears to have come down from an early promiscuous state of society.

In Prehistoric Archæology our year's work has been good. Mr. Worthington Smith has enlarged the area of palæolithic man in England, while Mr. Knowles' "Flint Implements from the North of Ireland," illustrates the Neolithic period. Miss Buckland contributes "Notes on Cornish and Irish Monuments," Mr. Lewis on "Irish Antiquities," and Mr. Mortimer on the barrow near Driffield, called "Kemp How, Cowlam." Those of us who are inclined to look to the Scandinavians as great setters-up of rude stone monuments to commemorate the dead and mark the sites of battles, will read with particular interest Mr. Hilton Price's account of "The Three Stones or Trellech in Monmouthshire, called Harold's Stones," and said to record a victory of Harold over the Welshmen. It is to be hoped that some day our knowledge of the modern Asam standing-stones, which throw such light on the purpose of our prehistoric ones, may be enlarged by our having the opportunity of publishing copies of Mr. Peal's admirable drawings lately exhibited to the Institute. Sir Charles Nicholson's account of "Cave-Sculptures in Australia," is evidence which may be brought forward to prove that their ancestors were more artistic than the tribes in their present state. But Mr. Brough Smyth's recent important work drawn up for the Victorian Government, tends to show that the actual capacity and art of the natives have been generally estimated too low.

Mr. Westropp's paper on "Fetichism" combats the well-known theory of Prof. Max Müller, that fetish worship is to be regarded, not as a primitive phase of religion, but as a sort of side-development from a more advanced theistic faith. If we could admit Prof. Müller's starting-point of theology in a state like

that of the Aryans of the Veda, his consequence would no doubt follow. But I am bound to stand up for the opinion that the Vedic deities represent not a primitive, but a high and late stage of religion. So far as the evidence has come under my observation, it seems that fetichism appears as a concomitant both of low and high phases of theology, while its study is hampered by the additional difficulty that the fetish is in many cases not a divinely-possessed or inspired object at all, but only a magical object. If we could by some means distinguish certainly between these two acceptations, it might be the means of solving the general problem of fetichism. In the history of religion, the greatest difficulty lies in understanding practices which are devoutly performed by the worshipper though he has lost the clue to their meaning. This comes well into view in Mr Walhouse's paper on "Rag-Bushes," where he collects evidence how in all quarters of the globe rags and such-like trumpery are hung on sacred trees. Here we have the form of sacrifice, but not the value or use in the object sacrificed, which alone can give it a rational origin and purpose. To the now popular problem of the development of ethical ideas belongs Mr. Farrer's paper on "Primitive Warfare." He traces the legal limitations under which war is carried on even in the rudest communities. The author may perhaps undertake the working out in further detail of this instructive subject, which has not received the attention it deserves, though the effect of war in consolidating government, and putting society under the strict discipline which earliest belongs to the war-party, has been dealt with by several writers.

In conclusion, it remains for me to say that no society has its work more plainly laid out for it than ours. In physical anthropology, comparative philology, and the science of culture, the inquirer has no need to go in quest of subjects to which he may devote research. In all our topics a promising beginning has been made, but neither in the study of the human body, nor of language, nor of civilization, has any approach to a final settlement of doctrine been made. The early dogmatism which

belongs to mere want of knowledge of the difficulties, is passing away in Anthropology. The later dogmatism which may one day be founded on completer knowledge will not have its standing-ground for many a year. It is no unpleasant position to stand as we do in the great middle region, where there is still room for the widest divergence of theory, but yet evidence enough to give an idea whether any particular theory is tending or not toward ultimate truth.

A. W. FRANKS, Esq., F.R.S., moved, and Major-Gen. A. LANE FOX, F.R.S., seconded, a vote of thanks to the President; and that the Address be printed in the Journal of the Institute.

The Scrutineers gave in their report of the ballot, and the following gentlemen were declared to be duly elected to serve as Officers and Council for the ensuing year:—

President.—E. B. Tylor, Esq., D.C.L., F.R.S.

Vice-Presidents.—Hyde Clarke, Esq.; John Evans, Esq., D.C.L., F.R.S.; Prof. W. H. Flower, F.R.S.; Maj.-Gen. A. Lane Fox, F.R.S.; Francis Galton, Esq., F.R.S.; Dr. Allen Thompson, F.R.S.

Directors and Hon. Secs.—E. W. Brabrook, Esq., F.S.A.; W. L. Distant, Esq.; J. E. Price, Esq., F.S.A.

Treasurer.—F. G. H. Price, Esq., F.G.S.

Council.—Lt.-Col. Godwin Austen; J. Beddoe, Esq., M.D., F.R.S.; Prof. George Busk, F.R.S.; C. H. E. Carmichael, Esq., M.A.; W. Boyd Dawkins, Esq., F.R.S.; Sebastian Evans, Esq., LL.D.; A. W. Franks, Esq., M.A., F.R.S.; Baron A. von Hugel; Prof. Huxley, F.R.S.; A. H. Keane, Esq., B.A.; A. L. Lewis, Esq.; Sir J. Lubbock, Bart., M.P.; R. Biddulph Martin, Esq.; the Earl of Northesk, F.S.A.; Prof. Rolleston, M.D., F.R.S.; F. W. Rudler, Esq., F.G.S.; Lord Arthur Russell, M.P.; Rev. Prof. Sayce, M.A., M.R.A.S.; Alfred Tylor, Esq., F.G.S.; C. Staniland Wake, Esq.; M. J. Wallhouse, Esq., F.R.A.S.

On the motion of Mr. W. L. DISTANT, seconded by Mr. BRABROOK, thanks were returned to the scrutineers.

Mr. BRABROOK moved, and Mr. RANGER seconded, a vote of thanks to the retiring members of the Council, which was carried unanimously.

ANTHROPOLOGICAL MISCELLANEA.

CUSTOMS OF THE AUSTRALIAN ABORIGINES.

THE following notes are extracted from a communication forwarded to the Institute by Captain William E. Armit, F.L.S. They relate to practices still existing among the tribes of the Australian continent and will be perused with interest as the result of resident observation.

Captain Armit writes: "The natives of the north-west coast are visited yearly by Malay Prahus brought over to trade for pearl shells, beche-de-mer, &c. These Malays have, by interbreeding, considerably altered the races inhabiting that portion of the continent. We here find bold and aggressive savages, who have lost the dread of the white man evinced by all inland blacks. They practise the rite of circumcision and are in several other points superior to the other tribes. It is, however, singular that their customs should prevail through the whole length and breadth of Australia. It cannot be accounted for by the intercourse existing between the above mentioned tribes and the Malay Archipelago, as if introduced by the latter they would merely be found amongst these tribes and not inland, a constant war being waged between tribe and tribe; they must therefore owe their introduction to very remote times when perhaps access to this country was much less difficult than it is at present.

"The law enacted in Leviticus xii. ver. 2-4, is observed by all the tribes with which I have come in contact during twelve years' sojourn in the country between Brisbane and Carpentaria. The women are rigorously excluded for a month or six weeks after childbirth, and during this period the father does not see his offspring.

"Again, Leviticus xv. ver. 19, enacts another law which is also universally respected and obeyed by the Australian blacks. In one instance near Townsville, in 1870, a case came under my notice where a Gin was put to death for having gone into her husband's Mi-Mi and lain in his blanket during her period of menstruation. In this instance the black-fellow had slept in his humpy as usual, and did not discover that the Gin had used his bed until the next day, when he killed the woman, and his own superstitious dread of evil killed him within a fortnight! That such laws should be respected by races who in point of psychological power rank scarcely

higher than the Andamanese would be inexplicable were it not obvious that they are merely sanitary laws, a breach of which, often repeated, would lead to the most miserable consequences.

"Nor is it likely that these laws would have been binding with such low savages as our Australians, had they not been clothed in the garb of superstition, with penal clauses, entailing no less a penalty than death on the persons violating them. The women under quarantine are secluded from the rest of the camp, nor will a black-fellow approach them under any circumstances. I have repeatedly been amused by seeing my troopers make a détour to avoid crossing the tracks of the Gin or Gins who occupied the quarantine hut. Mr. Wallace alludes to the custom of secluding women at child-birth as prevalent in Celebes and Borneo among the Dyaks and other savage tribes.* The rite of circumcision is also practised by several Australian tribes, and was noticed by Doctor Comrie, R.N., when visiting the south-eastern peninsula of New Guinea in H.M.S. 'Basilisk.' The custom is, I believe, also known to exist in New Zealand.

"One of my troopers, a native of the Leichhardt river, Carpentaria, informs me that a curious custom is observed in his tribe. The first-born of any couple is treated with great affection and made much of until his younger brother attains the age of manhood. When this happens the father quarrels with his eldest son, beats and illtreats him, and ultimately drives him from the camp with curses and every mark of aversion. A lapse of one month finds the whole tribe encamped on the same spot, and the outcast son rejoins his tribe, his presence being henceforth tolerated, but he remains a stranger to his family.

"That such laws should exist at all in the nineteenth century among such savage races is most interesting, and I think points clearly to the fact that they must in prehistoric ages have held intercourse with Asia or the Old World, and with the Semitic branch of the Caucasian race; or, which is perhaps still more probable, with a people who derived many of their manners, customs, and traditions from that race.

"We have only to study the different types of man, as found in the Archipelago, to have this conclusion forced upon our minds."

The GREAT TOE of the ANNAMESE. By CHARLES F. TREMLETT,
H.B.M. Consul, Saigon, 15th November, 1879.

GIAO-CHI.

交趾

FIRST to show what these characters mean and to mark their application to the Annamite.

In his "Notes pour l'histoire de la nation Annamite," Père Legrand de la Lyraye says that the existence of the country of the

* "Malay Archipelago," p. 217. Fourth Edition, 1872.

Giao-Chi is mentioned in Chinese annals of 2285 B.C. or 63 years after the deluge. The name is composed of two Chinese characters, meaning "crossed toes." Several books spell it "Kiao-tye," Kiao meaning "to cross," and tye "toe." The Rev. Father, who died four years since, was well versed in Chinese literature, and his "Notes" may be found at the Missions Etrangères at Paris, at the Ministère de la Marine, or in the columns of the "Courrier de Saigon" for 1869.

At a later date than that first noted, viz. 1109 B.C., the name again appears in Chinese records, in connection with two Annamite ambassadors who were sent to the Emperor Thanh-Tuong (dynasty Tchian) with tribute: these two citations of this peculiar name at such remote periods, and there are probably more instances, should have weight.

Père Thalerd, in his "Dictionary Annamitico-Latin," gives the meaning of Giao-chi as "Cocincinensis," but adds that the expression is used as one of contempt, so used by the Chinese probably, for the Annamese are without doubt proud of the distinction: the dictionary mentioned was printed in 1838.

At any rate there is no question that the ancient name of the whole country was Giao-chi, for it has never ceased to bear that designation, as is noted at various intervals up to modern times.

Conformation.

The peculiarity consists in the great toe being at an angle to the others instead of parallel with them; it is much like the thumb of the hand and not to be confounded in its action with the usual freedom with which many natives are able to use their feet, for this is quite independent of the other toes and entirely characteristic of Annamese.

Doctor Mondière in a report read at the Société d'Anthropologie, Paris, 5th February, 1874, regrets very much that he had no opportunity of dissecting a foot; and, indeed, it seems very strange that more interest should not have been shown about such a remarkable thing; it is supposed that there is a muscle similar to that of the monkey. The respect shown by the natives for their dead is given as a reason why a foot cannot be obtained, but surely there must sometimes occur cases of amputation?

Doctor Mondière has been stationed at Hue for two years with the French Legation, and may have learned many more interesting facts than have yet been published.

Doctor Thérél, a member of the "Exploration du Meikong" (published by Hachette, Paris, 1873), says in the "Notes Anthropologique" that the confirmation of the foot of the Annamite race is a proof that it is aboriginal, and not a mixture of Chinese and savages, as at one time was attempted to be shown, for such conformation is confined to them and does not exist in the neighbouring Chinese provinces, and moreover disappears in the progeny of mixed races. It is a common thing in Tongking and the adjacent mountains, but

is not frequently seen in the other parts of the empire where the race has intermingled with other peoples.

CHAS. F. TREMLETT, H.B.M. Consul.

Saigon, 15th November, 1879.

THE GODEFFROY MUSEUM OF HAMBURG.

THE unfortunate position of the affairs of the founder of this Institution has lately given publicity to its existence and the question of its future is now being anxiously discussed. It has grown up from a modest commencement, and has, more especially in the course of the last twenty years, gradually increased until it now occupies a position of great importance amongst scientists, and it is somewhat unique in its way.

Although well known to those interested, the public has had little opportunity of studying its curiosities and the majority of our citizens never have seen it. We therefore venture to draw a slight sketch of it.

The Godeffroy Museum has to thank its origin to the sending out of travellers by the firm of J. C. Godeffroy and Son, and the collections thus brought home from the Pacific Ocean and East Coast of Australia were confided to scientific authorities, to be named and classified by them, and to be combined with new specimens of those species already known. Up to the present, however, of the zoological sections, only the mammalia, fish, reptiles, and amphibious creatures are yet in positions.

The most noticeable of the sections are the coral and the bird collections, as also the magnificent collection of sea-urchins, star fish, and sea anemones; the beautiful collection of spiders, centipedes, and insects, containing splendid butterflies, chafers, and locusts, must also be mentioned.

A large number of specimens of reptiles, fishes, mammalia, and amphibious animals are lying in the stores of the museum ready to be put up. Including the zoological, the anthropological collection of skulls, skeletons, castings in plaster and photographs of natives, and the ethnological collections, more than 3,000 objects are already placed in order.

Specimens of the latter branch of science will never before have been collected in such completeness even for a limited area, and it will be impossible in the future to bring such a collection together, as in the Pacific Ocean, ironware and objects of civilized culture are bartered with the native in exchange for the products of his industry, and aboriginal manners and customs too soon disappear. For example, one of the native war-clubs, not unlike our ancient weapons, which sixteen years ago was to be had for an empty beer or pickle bottle, now costs in the Fiji Islands £5 or more.

In the ethnological section, the eastern side of Australia, Fiji Islands, New Hebrides, Salomon Islands, Kingsmill Islands, New Britain, and the Caroline Archipelago are specially represented.

In the anthropological sections, we would specially mention eight skeletons of Australian negroes, of which in the whole of Europe there are only six others to be found. Also to be noticed are 30 Fiji skeletons, and a rich collection of skulls from the Fiji Islands and the New Britain Archipelago, and from the New Hebrides a number of skulls deformed in the same manner as the skulls found in the old Inca tombs of Peru.

From the foregoing, the scientific value of the collection will be clearly seen, as it may be said to have opened the way to our scientific knowledge of the Pacific Ocean, and the greater part of the publications of the last ten years, relating to zoological, botanical, ethnological, anthropological, and other subjects of this nature, have been founded on the material now before us.

The special characteristic of the museum consists in its limitations to one district, and through the continued researches of years, it puts plainly before us, and with the utmost fidelity, the highly interesting conditions of life which exist on those distant islands as well in nature as in the people. In these islands, as in all the larger islands of the Pacific, we find that besides those forms of animal and vegetable life which are common to all, there are also specimens which are peculiar to each island or group of islands, and these peculiarities are manifested in the life and nature of the native as well as in the animal and vegetable world. For example, though many varieties of pigeons are common to the whole of the Pacific Ocean, we find on the Samoa Islands one variety, the *Dedunculus*, which is peculiar to these islands, and in like manner the Fiji Islands have the variety called the *Chrysoenas*, which is confined to their shores. We find likewise in every group special forms of weapons and implements which are peculiar to them, besides those varieties which, if slightly modified, are also used in the other islands and groups. The Fijians, for instance, have peculiar to themselves a special form of war club, not unlike the ancient "morning star," of which the handles are mostly ornamented with beautiful carved work, and all more or less polished; on the Samoa Islands, we find a club with a flat blade, both edges being cut into saw-like teeth; it is not polished, but sometimes entirely covered with carved work. On the Tonga Islands a club is used of which the round handle gradually becomes a very broad blade with scooped-out edges; in the Kingsmill Archipelago, the club is changed into a flat sword-like piece, both sides of which are set with sharks' teeth; in the New Britain Archipelago, the club consists of a stick pointed at one end, and gradually increasing in thickness to the other, near which is fastened a stone ring; and many more examples might be quoted.

If we consider the various industries of the natives, for instance, we find that the Fijian is skilled in making ornaments out of the teeth of the sperm whale; among the articles thus made deserving of special mention are splendid breastplates which are made either entirely of these teeth or the foundation of mother-of-pearl, with the teeth worked in, or ornaments of this material are fastened on;

among the Solomon Islanders we find another art more advanced; a great number of their arms and ornaments are very tastefully and originally inlaid with mother-of-pearl. The inhabitants of the Kingsmill Archipelago are likewise very clever in embellishing their weapons with sharks' teeth as well as their ornaments of mussel shells.

In the Caroline Archipelago, the art of making ornaments is brought to great perfection, for there we find belts, necklaces, ear-rings, &c., which often consist of many hundred small rings prepared from cocoa-nut shells worked together.

Among the natives of the New Britain Archipelago, great perfection in the art of carving meets us, and the multitude of designs is exceedingly astonishing, especially if we consider the very primitive tools with which these carvings are executed.

Such a picture of the life and nature of a region as we have here presented to our view is only to be obtained if, as we have already mentioned, the researches are confined to one spot; only then is such a result to be obtained as is now before us, and which has for ever ensured to itself an honoured name in the scientific world.

Having thus taken a short survey of this very interesting collection, the question now remains what is to become of it? It is plainly evident that if it were sold in separate parts, and the various objects distributed about the world, the museum would lose its scientific interest. Whatever therefore becomes of the collection, whether it remains in Hamburg or is sold into other hands, it ought for the benefit of science to be kept intact.—("Hamburgischer Correspondent," No. 292, 9th December, 1879.)

NOTICE OF AN INTERESTING PUEBLO WEAPON.

By W. J. HOFFMAN, M.D.

ONE of the most singular weapons found in use among any of the North American tribes is the *Zuñi K7e'-a-ne*, an instrument similar to the Australian "boomerang." The specimens recently collected in New Mexico vary but little in form from those used by the Moqui of Arizona, the characteristic features of the latter are that they are a trifle shorter and perhaps more abruptly bent. They are made either of ash or oak wood, from eighteen to twenty-four inches long, one and a half to two inches broad, and about three-eighths of an inch thick along the middle ridge, growing gradually thinner toward either edge. The form varies from that of a slight curvature resembling a cavalry sabre to that of an obtuse angle of 130°, these being the extremes, the normal curve or angle, as the case may be, being nearer the latter. In one instance I noticed a Moqui weapon bent to nearly a right angle, the bend being as abrupt as the fibres of the wood would admit without breaking.

One end of the weapon is generally somewhat narrowed, with the edges rounded so as to be more easily and securely grasped for throwing. Some of them are often painted, usually white with

oblique stripes of green or some other common colour, according to the fancy of the maker or possessor.

Neither the Zuñi nor the Morqui are acquainted with the art of producing those effects, nor the feats which are peculiar to and practised by the Australians, and the only way in which the *kleané* is successfully used in securing small game, such as rabbits, etc., is by throwing it horizontally and directly forward toward the object. There is scarcely any doubt but that if these Indians were instructed in the proper manner of handling this weapon, they might acquire, at least to some extent, that skill possessed by the average Australian; and it is remarkable that this has not been discovered through accident as the weapon appears to have been an independent discovery and not transmitted to them from any other tribes, as no traces of a similar instrument have as yet been detected; neither from ancestors, as their probable predecessors, the "ancient Pueblos," have left no relics of like character, although numerous specimens of art of a more destructible nature are found in abundance in the various ruined communal and cliff dwellings.

WOLF-REARED CHILDREN (extracted from "Jungle Life in India," page 454 *et seq.*). By V. BALL, M.A., of the Geological Survey of India.

FROM Delhi I pushed on to Agra, arriving there on the morning of the 3rd of August. Having seen some of the sights of the city, I drove to Sekandra, in order to visit the Orphanage, and avail myself of the opportunity for the first time afforded to me of making inquiries on the spot regarding the reputed finding of boys living with wolves as their foster parents. A year previously, as I shall presently show, I had been instrumental in drawing attention to the cases of wolf-reared children which had been reported, and I was most anxious to examine one of the boys myself. But before giving an account of the results of my inquiries, and a *résumé* of the existing literature of the subject, I wish to say, by way of preface, that I have found that this subject is one of those which the majority of people seem unable to discuss without prejudice. They make up their minds that the whole thing is a myth before they have heard what evidence can be adduced in its favour. I am, unfortunately, not in a position to give any personal testimony of importance; all that I can do is to place the evidence available before the candid reader. In my first published communication on this subject which I made to a learned Society,* I advocated, what I also do now, that the matter should, on the first recurrence of an opportunity, be most strictly inquired into, and that it should not in future be approached in the hostile and incredulous spirit which has hitherto prevailed. My paper, which was presented during my

* Vide "Proceedings of the Asiatic Society of Bengal, 1873," p. 128.

absence in Europe, met with some opposition, but subsequently saw the light in the form of an abstract.

About that time I received the following letter from a gentleman who did not wish his name mentioned in any discussion on the matter :—

“ Dear Sir,

“ Shajehanpur.

“ I see your name mentioned in the newspapers as one who leans to the belief that children have been nourished by wolves. And as there are sceptics who will have that you labour under a delusion, it may be interesting to you to learn a few particulars about a wolf-man who was for many years living in this city.

“ He was sent in by Col. Sleeman, and a Mahomedan took charge of him. The Mutiny occurring, this protector disappeared, and then the poor fellow came under my notice. At the time he might have been about 20 years of age. I took a little interest in him and tried to make him work ; but found that it was not possible to keep him at it. I tried him with food from the table and he was guided by smell, rejecting such portions as did not please him. His recognition was a grunt.

“ The hands were bent back but were not stiff, and when taking anything these retained the position instead of clutching. He walked on the front portion of the foot—the heels being slightly raised, and he walked with his knees bent ; in fact, one could readily suppose that he had as a child progressed in a stooping position, using both hands and feet.

“ He lived in a corner, with his legs brought up to his chin, and placed his food under anything that he might have to lie on, straw or old bedding. Clothes he would not wear, but was induced to keep on the usual strip, and this probably because he had been beaten at first and made to comply with customs so far.

“ The man is now dead. I cannot vouch that he had been nourished by a wolf, but the natives of the city believed that he had been so brought up, etc. etc.

“ He had not learnt to speak, he simply grunted and looked at persons askant, with the cunning silly leer above referred to.

“ Yours, &c.”

It however attracted the attention of Professor Max Müller, who, in the pages of the “ Academy,” pointed out the importance of the subject, and quoted a selection from the recorded cases of wolf-reared children. At the same time he strongly urged upon sportsmen, naturalists, and district officials, the desirability of carefully investigating on the spot, the probability and possibility of such cases being true.

The story of Romulus and Remus is not by any means singular. There are many other gods and heroes of antiquity who are stated to have been suckled by wolves, and whose histories are regarded

as wholly mythical in consequence of the presence of this element. If the case of a child being suckled and reared by wolves can be established as a physical possibility by a single well-authenticated case in India, such histories will assume a totally new aspect, and will have a chance of being accepted as true in their entirety.

Shakespeare alludes to the existence of a belief in such stories :—

ANTIGONTS.

“Come on, poor babe :

Some powerful spirit instruct the kites and ravens

To be thy nurses ! Wolves and bears, they say,

Casting their savageness aside have done

Like offices of pity.”

“Winter’s Tale,” Act II., Scene 3, Line 185.

Most of the recorded Indian cases, I believe, come from the province of Oude. This is possibly in a great measure attributable to the fact that the number of children carried away and killed by wolves is greater there than elsewhere. According to a table which I possess, the loss of life in the province attributed to this cause for the seven years from 1867 to 1873 inclusive, averaged upwards of 100 *per annum*.

According to Colonel Sleeman,* as quoted by Professor Max Müller, the number of little victims carried off to be devoured is so great in some parts of India, that people make a living by collecting from the dens of wild animals the gold ornaments with which children in India are always decked out by their parents. It is said even that those people are unwilling to take part in any wholesale destruction of wolves for fear of losing their livelihood.

The *modus operandi* adopted by the wolf has been thus described† :—“Night comes on, the wolf shirks about the village site, marking the unguarded hut. It comes to one protected by a low wall, or closed by an ill-fitting *tuttie* (mat). Inside, the mother, wearied by the long day’s work, is asleep with her child in her arms, unconscious of the danger at hand. The wolf makes its spring, fastens its teeth in the baby-throat, slings the little body across its back, and is off before the mother is fully aware of her loss. Pursuit is generally useless. If forced to drop its burden the cruel creature tears it beyond power of healing, while should it elude pursuit, the morning’s search results in the discovery of a few bones, the remnants of the dreadful meal.”

Shortly after this visit of mine to Agra, I read the following in the papers. The hotel mentioned was the very one at which I had stopped :—“On Saturday night while the chowkidar at Falmon’s Star Hotel was going his rounds, he observed a screen hanging before an open door moving, and something from the outside enter the house. On giving the alarm, the wife of the hotel-keeper had only just time to enter a room and save a sleeping child from the mercies of two wolves which she found there.”

* “Journey through the Kingdom of Oude,” 1858, vol. i. p. 208.

† Correspondent of the “Pioneer,” Nov. 25th, 1874.

It is remarkable that in some countries wolves rarely attack human beings. I have recently read an interesting work on wolf-hunting in Brittany, in which the author describes the ravages committed by wolves among cattle and horses, but states that human beings are not attacked. He relates a strange but apparently well-authenticated story of a little girl who followed up a wolf into the forest, where it had carried a goat which she was tending. For six weeks she was lost; but at the end of that time presented herself at a charcoal-burner's hut. During this long period she had wandered through the wolves' strongholds, and had managed to subsist on berries. Be this story true or not, it is a fact that children are not carried away by wolves in Brittany as they are in Oude. It suggests itself that the Oude wolves are a local race of man-eaters, characterised by an exceptional liking for human flesh. That wolves in all European countries where they are found will attack and devour man, when in packs, in severe winter weather, is well known, and does not require further notice.

My attention was, in the first place, drawn to this subject by the following extract from the Report of the Sekandra Orphanage, which, towards the end of the year 1872, went the round of the Indian papers:—

"A boy of about ten *was burned out of a den in the company of wolves*. How long he had been with them it is impossible to say, but it must have been rather a long period, from the facility he has for going on all-fours, and his liking for raw meat. As yet he is very much like a wild animal; his very whine reminds one of a young dog or some such creature. Some years ago we had a similar child; he has picked up wonderfully, and though he has not learned to speak, can fully express his joys and grief. We trust the new 'unfortunate' may soon improve too."

I immediately wrote to the Superintendent of the Sekandra Orphanage for confirmation of the story, and for any further information on the subject. To this application I received the following reply from the Rev. Mr. Erhardt. * * * "We have had two such boys here, but I fancy you refer to the one who was brought to us on March 6th, 1872. He was found by Hindus who had gone hunting wolves in the neighbourhood of Mynepuri. Had been burnt out of the den, and was brought here with the scars and wounds still on him. In his habits he was a perfect wild animal in every point of view. He drank like a dog, and liked a bone and raw meat better than anything else. He would never remain with the other boys, but hid away in any dark corner. Clothes he never would wear, but tore them up into fine shreds. He was only a few months among us, as he got fever and gave up eating. We kept him up for a time by artificial means, but eventually he died.

"The other boy found among wolves is about thirteen or fourteen years old, and has been here about six. He has learnt to make sounds. speak he cannot; but he freely expresses his anger and joy. Work he will at times, a little; but he likes eating better. His civilisation has progressed so far as that he likes raw meat

less, though he still will pick up bones and sharpen his teeth on them.

"Neither of the above are new cases, however. At the Lucknow Madhouse there was an elderly fellow only four years ago, and may be alive now, who had been dug out of a wolves' den by a European doctor, when, I forget, but it must be a good number of years ago.

"The facility with which they get along on four feet (hands and feet) is surprising. Before they eat or taste any food they smell it, and when they don't like the smell they throw it away."



I shall now describe the result of my visit to the Orphanage. On my arrival there, Mr. Erhardt very kindly sent over for the boy to the school and he was led in by the hand. He presented an appearance not uncommonly seen in ordinary idiots. His forehead was low, his teeth somewhat prominent, and his manner restless and fidgety. From time to time he grinned in a manner that was more Simian than human, the effect of which was intensified by a nervous twitching of the lower jaw. After taking a sort of survey of the room and the people in it, he squatted on the ground, and constantly placing the palms of his hands on the floor stretched forward in different directions, picking up small objects, such as fragments of paper, crumbs, etc., and smelling them as a monkey would do. I was told that he depends much more upon the organ of smell than that of taste for the identification of objects,* and his conduct while I watched him fully bore out the statement. On being shown a guava he exhibited much excitement, writhing about

* In connection with this it may be of interest to quote a passage from Darwin's "Descent of Man," First Edition, p. 24: "The sense of smell is of extremely slight service, if any, to savages, in whom it is more highly developed than in the civilised races."

and stretching out his hands for it. When it was given to him he first smelt it all over very carefully, and then holding it close to his mouth proceeded to gnaw it. He was then given some unripe *Karaunda** fruit. Having smelt it he showed signs of uneasiness which were interpreted by those standing by as indicating a want of salt to allay the acidity—it having been given to him on previous occasions. He is a somewhat slenderly-built lad, standing about five feet three inches, and is considered by Mr. Erhardt to be about fifteen years of age, and had been then (1874) nearly nine years in the Orphanage. He is described as being of a happy temperament. He has got some knowledge of locality and can go about the grounds by himself, but could not do so when Mr. Erhardt first took charge of the Orphanage. Without constant supervision it is found to be impossible to keep him to any work. He will, for instance, carry a basket while watched, but immediately drops it when left alone. The feature in his physical structure which above all others attracted my particular notice was the shortness of his arms, the total length being only nineteen-and-a-half inches. This arrested growth was probably caused by the fact of his having gone on all-fours in early life, as all these wolf-boys are reported to have done when first captured. Mr. Erhardt not having been in charge of the Orphanage when this boy was brought in, could give no further particulars regarding his capture than those contained in his above-quoted letters; but a native guide in Agra, whom I interrogated as to whether he had any knowledge of the subject, told me that rather less than nine years previously he was in the magistrate's court, when this boy, the body of an old female wolf, and two wolf cubs were brought in. At that time the boy was a perfect *Janwar* (wild beast). He went on all-fours, refused all kinds of cooked food, but would eat any amount of raw meat. For some time he was kept by the Civil Surgeon of Agra bound down on a *charpoy*, or native bedstead, in order to straighten his legs, and several months passed before he was able to maintain an erect position.

Regarding the boy which was brought to the Orphanage on the 5th of March, 1872, Mr. Erhardt said that on his arrival he would not touch any food in the form used by human beings; at the same time he was too young and weak to have provided himself with any, but he would eat raw meat ravenously. Observing these facts and also sundry wounds and burns on the body, Mr. Erhardt sent for the people who had brought in the child, and then first heard that he had been smoked out of a wolf's den. While he lived at the Orphanage, which was for only about four months, he used occasionally to get loose at night, when he would prowl about the ground searching for bones. Shortly after his arrival he made an effort to escape into the jungle, but was captured and brought back. During the whole time he uttered no sound save a melancholy whine like that made by young cubs. A strange bond of sympathy

* "*Carissa Carandus*," Linn.

attached these two boys together, and the elder one first taught the younger to drink out of a cup. While the younger boy remained alive Hindus frequently came to the Orphanage and applied for permission to make their salaam to him, being under the impression that by so doing they, through his influence with the wolves, would avert any loss or injury to their families and flocks. I shall now give some of the previously recorded cases.

A short notice on this subject* was communicated to the "Annals and Magazine of Natural History,"† by the late Sir Roderick J. Murchison. It consists of an extract from the journal of the Hon. Captain Francis Egerton, R.N., who, on the authority of Colonel Sleeman, relates several stories of these wolf-reared children. Colonel Sleeman knew of five instances, in two of which he had both seen the children and was acquainted with the circumstances of the capture. One of these captures was made in the following manner:—"Some time ago, two of the King of Oude's sowars, riding along the banks of the Gúmptji, saw three animals come down to drink. Two were evidently young wolves, but the third was as evidently some other animal. The sowars rushed in upon them and captured all three, and to their great surprise found that one was a small naked boy. He was on all-fours like his companions, had callosities on his knees and elbows, evidently caused by the attitude used in moving about, and bit and scratched violently in resisting the capture. The boy was brought up in Lucknow, where he lived some time, and may for aught I know be living still. He was quite unable to articulate words, but had a dog-like intellect, quick at understanding signs, and so on." It seems probable that this was the same individual as the one mentioned in the letter from the Superintendent of the Sekandra Orphanage above quoted. The following occurs in Captain Egerton's journal:—"There was another more wonderful but hardly so well authenticated story of a boy who never could get rid of a strong wolfish smell, and who was seen, not long after his capture, to be visited by three wolves, which came evidently with hostile intentions, but which, after closely examining him, he seeming not the least alarmed, played with him, and some nights afterwards brought their relations, making the number of visitors amount to five, the number of cubs the litter he had been taken from was composed of." I think Colonel Sleeman believed this story to be perfectly true, though he could not vouch for it.

The following passages I quote *verbatim* from Professor Max Müller's letter:—"A trooper, sent by the native Governor of Chandour to demand payment of some revenue, was passing along the banks of the river about noon, when he saw a large female wolf leave her den, followed by three whelps and a little boy. The

* Since this account was published, my attention has been drawn by Mr. W. L. Distant to a paper entitled "Wild Men and Beast Children" (Anthropological Review and Journal of the Anthropological Society, vol. i, 1863), and which I regret not having seen earlier.

† Vol. viii, Second Series, 1851, p. 153.

boy went on all-fours, and when the trooper tried to catch him, he ran as fast as the whelps, and kept up with the old one. They all entered the den, but were dug out by the people with pickaxes, and the boy was secured. He struggled hard to rush into every hole or den they came near. He became alarmed when he saw a grown-up person, but tried to fly at children and bite them. He rejected cooked meat with disgust, but delighted in raw flesh and bones, putting them under his paws like a dog. They tried to make him speak, but could get nothing from him but an angry growl or snarl.

"So far the evidence rests on native witnesses, and might be considered as more or less doubtful; but the boy, after having spent a time with the Raja of Harunpur, was afterwards forwarded to Captain Nicholetts, the European officer commanding the 1st Regiment of Onde Local Infantry at Sultanpur. Captain Nicholetts made him over to the charge of his servants, and their accounts completely confirm what was stated before. The wolf-child would devour anything, but preferred raw meat. He once ate half a lamb without any effort. He never kept on any kind of clothing; and a quilt, stuffed with cotton, given to him in the cold weather, was torn by him and partly swallowed.

"In a letter, dated the 17th and 19th September, 1850, Captain Nicholetts informed Colonel Sleeman that the boy had died at the latter end of August. He had never been known to laugh or smile. He formed no attachment, *and seemed to understand little of what was said to him.* He was about nine years old when found, and lived about three years afterwards. He would run on all-fours, but occasionally he walked uprightly. He never spoke, but when he was hungry he pointed to his mouth. Only within a few minutes before his death, the servants relate that he put his hands to his head, and said it ached, and asked for water; he drank it and died.

"Another instance is related as having occurred at Chupra. In March, 1843, a man and his wife went out to cut their crop of wheat. The woman was leading her boy, who had lately recovered from a severe scald on the left knee. While his parents were engaged, the child was carried off by a wolf. In 1849, a wolf with three cubs was seen, about ten miles from Chupra, followed by a boy. The boy, after a fierce resistance, was caught, and was recognised by the poor cultivator's widow by the mark of a scald on the left knee and three marks of the teeth of an animal on each side of his back. He would eat nothing but raw flesh, and *could never be brought to speak. He used to mutter something, but never articulated any word distinctly.* The front of his knees and elbows had become hardened from going on all-fours with the wolves. In November, 1850, Captain Nicholetts ordered this boy to be sent to Colonel Sleeman, but he got alarmed, and ran to a jungle.

"The evidence, therefore, of this case rests, to a certain extent, on native authority, and should be accepted with that reservation.

The same applies to a third case, vouched for by the Raja of Husunpur, which adds, however, nothing essential, except that the boy, as seen by him in 1843, had actually short hair all over his body, which disappeared when he took to eating salt. He could walk on his legs, but he could not speak. *He could be made to understand signs very well, but would utter sounds like wild animals.*

"Another, a fourth case, however, is vouched for again by European witnesses. Colonel Gray, who commanded the 1st Oude Local Infantry at Sultanpur, and Mrs. Gray, and all the officers of the place, saw a boy who, in 1843, had been caught while trotting along upon all-fours, by the side of a wolf. *He could never be made to speak*, and at last ran away into the jungle.

"A fifth case rests on the evidence of a respectable landowner of Bankipur, in the estate of Husanpur, called Zulfukar Khan. Here, too, the boy—who had been six years old when carried off, who was ten when rescued—could not be brought to speak, though it was easy to communicate with him by signs.

"One other statement of a wolf-boy is given by Colonel Sleeman; but as it rests on native evidence only, I will only add that this boy also, when caught, walked on all-fours, ate raw meat, and smelt like a wolf. He was treated kindly; but though he learnt to behave better and walk uprightly, *he never could understand or utter a word, though he seemed to understand signs.*

"There are other cases, but those which I have selected are to my mind the best attested. They all share one feature in common, which is of importance to the student of language more even than the student of mythology, viz.: the speechlessness of the wolf-children. It was this fact, more than the bearing of these stories on a problem of mythology, which first made me collect the evidence here produced; for as we are no longer sufficiently wolfish to try the experiment which is said to have been tried by a King of Egypt, by Frederic II, James IV, and one of the Mogul Emperors of India ("Lectures on the Science of Language," 7th ed., vol. i, p. 394), viz.: to keep babies in solitary confinement, in order to find out what language, if any, they would speak, these cases of children reared by wolves afford the only experimental test for determining whether language is an hereditary instinct or not."

Supposing the above stories to be true, the only suggestions which I can offer to account for the preservation of the children from the ordinary fate, are that, firstly, it may be that while one of a pair of wolves has brought back a live child to the den, the other may have contributed a sheep or goat to the days' provision, and that this latter proving sufficient for immediate wants, the child has been permitted to lie in the den, and possibly to suckle the female, and has so come to be recognised as a member of the family. Secondly, and, perhaps, more probably, it may be that the wolf's cubs having been stolen, the children have been carried off to fill their places, and have been fondled and suckled.

There is one curious point common to all the stories, and that is

that all the children appear to have been of the same sex—namely, boys. There is no record, I believe, of a wolf-reared girl.

I am fully aware that much has been written in ridicule of the subject. Not very long ago I had an opportunity of asking an eminent and well-known surgeon, who formerly resided in Oude, what he thought of these stories, and his reply was, "I don't believe one of them."

According to the law of averages, the next few years ought to produce a case, and it is to be hoped that should one occur, it may be made the subject of the very strictest inquiry by a joint committee of judicial and medical officers. Till such an event happens, I trust that my readers will at least recognise the justice of suspending judgment.

INDEX.

A.

- Annual General Meeting, 437.
 Anthropological Miscellanea, 233, 345, 459.
 Anthropology, French, 233.
 — Address to the Department of Anthropology of the British Association, 1879, 235.
 Anthropometric Committee of the British Association, Report, 345.
 Andaman Islanders, osteology of, 108.
 Annamese, the great toe of the, 460.
 Antiquities, Irish, 137.
 Armit, Captain W. E., customs of the Australian Aborigines, 459.
 Australian Marriage Laws, 354.
 — Aborigines, 459.

B.

- Ball, V., Wolf-reared children, 465.
 Beddoe, Dr. J., the Progress of Public Health in our own times, 351.
 Beehive Huts, 155.
 Bertin, G., 311, 373.
 Bheel Tribes of the Vindhyan Range, 397.
 — Oaths and Ceremonies, 399.
 — Superstitions, 400.
 Bhee'alahs, 402.
 — Marriage Ceremonies, 403.
 Bonwick, James, 34.
 Brabrook, E. W., on an Echelle de Couleurs, 19.
 Buckland, Miss A. W. notes on some Cornish and Irish Pre-historic Monuments, 146.

C.

- Cagots, the, 376.
 Canelos Indians, 389.
 Clapham, Crochley, 384.
 Cliff Castles, 156.
 Clarke, Hyde, 29, 106, 165, 344, 374.
 Conway, Moncure, on Chinese Card-playing, 29.

- Cornish Circles, 149.
 Couleurs, On an Echelle de, 19.
 Cromlechs, 150.
 Crosses in Ireland and Cornwall, 157.

D.

- Distant, W. L., Engravings in Mouhot's Travels, 289.
 — 34.

E.

- Eskimos' Bone Implements, 329.
 Evans, John, 384.
 Exhibitions: the cranium of a native of one of the Fiji Islands, affected to an extreme degree with scaphocephaly, associated with complete parietal synostosis, 2; photographs from Australia, 3; photographs collected by the Anthropometric Committee, 254; ethnological drawings made in Assam, 254; squeezes of Hamath Inscriptions, 337.

F.

- Farrer, J. A., Savage and Civilized Warfare, 359.
 Fetichism, notes on, 304.
 Fison, Rev. Lorimer, Australian Marriage Laws, 354.
 Flower, Prof. W. H., on the cranium of a native of one of the Fiji Islands, 2.
 — Osteology of natives of the Andaman Islands, 108, 167.

G.

- Games, the Geographical Distribution of, 23.
 Giao-Chi, 460.
 Godeffroy Museum of Hamburg, 462.

Godwin Austen, Lieutenant-Colonel H., the Games of Persia and India, 29.

— 166, 301, 328.

H.

Hamath Inscriptions, 369.

Heath, Rev. Dunbar, Squeezes of Hamath Inscriptions, 337, 369.

Hoffman, W. J., Notice of an interesting Pueblo Weapon, 464.

Holed Stones, 153.

Holt, R. B., 106.

Howorth, H. H., Introduction to translation of Tseen Han Shoo, 53.

— the Spread of the Slaves, Part III, 181.

— the Ethnology of Germany, Part IV, 406.

I.

Indo-Chinese and Inter-Oceanic Races and Languages, 254.

— General Scheme of Races, 285.

— — — of Languages, 286.

Indo-Chinese Races, and the Races of the Indian Archipelago, Analogies of Manners, 290.

J.

Jívaros Indians, 385.

K.

"Kemp How," Cowlam, 394.

Keane, A. H., on the relations of the Indo-Chinese and Inter-Oceanic Races and Languages, 254.

— 49, 106, 302, 311, 341, 405.

Kincaid, Colonel W., report on the Bheel Tribes of the Vindhyan Range, 254, 397.

— 406.

Knowles, W. J., Portstewart and other Flint Factories in the North of Ireland, 167, 320.

L.

La Couperie, F. de, Mosso Writing, 337.

Lewis, A. L., Notes on some Irish Antiquities, 137.

— Cornish and Irish Monuments, 165.

— Ancient Arithmetical Progress, 337.

— 319.

Löwy, A., 373.

M.

Maclean, Hector, Gaelic Mythology, 167.

Madagascar, Relationships and the names used for them, 35.

Marriage Customs in Madagascar, 39.

Mathew, John, on the Kabi Dialect of Queensland, 145, 312.

Meetings, ordinary, 1, 3, 23, 30, 50, 107, 136, 145, 146, 166, 249, 336, 353, 375.

Members, new, 1, 50, 107, 146, 166, 249,

Menhirs, 147.

Mortimer, J. R., "Kemp How," Cowlam, 394.

Mythology, Gaelic, 167.

N.

Nicholson, Sir Charles, on some Rock Carvings found in the neighbourhood of Sydney, 31.

P.

Palæolithic Implements from the Valley of the Brent, 316.

— from the Valley of the Axe, 369.

— from the Valley of the Thames, 369.

Pfoules, C., some facts about Japan and its people, 166.

Portstewart and other Flint Factories in the North of Ireland, 320.

Pre-historic Monuments, Cornish and Irish, 146.

President's Address, 443.

Price, F. G. Hilton, the great antiquity of Games of Ball, 30.

— Trellech, 51.

Primitive Human Family, the, 3.

Pueblo Weapon, interesting, 464.

R.

- Rag-bushes, 97.
Report of Council for 1879, 440.
Rialle, Girard de, French Anthropology, 233.
Rock Carvings found in the neighbourhood of Sydney, 31.
Rougemont, Prof. Ph. de, 247.

S.

- Seeböhm, Henry, 31.
Shute, R., 368.
Sibree, Rev. J., on relationships among the peoples of Madagascar, 35.
— Aboriginal Races in Madagascar, 49.
Simson, Alfred, Notes on the Jívaros and Canelos Indians, 385.
Slaves, spread of the, Part III, 181.
Smith, Worthington G., Palæolithic Implements from the Valley of the Brent, 167, 316.
— from the Valley of the Axe, 369.
— from the Valley of the Thames, 369.
Sollas, W. J., Eskimos' Bone Implements from the East Coast of Greenland, 329.

T.

- Tremlett, Charles F., the Great Toe of the Annamese, 460.
Tuke, Dr. Hack, the Cagots, 376.
— 393.
Tumuli, Chambered, 151.
Turcomans between the Caspian and Merv, 337.

- Tylor, Edward B., Remarks on the Geographical Distribution of Games, 23.
— Signification of the word *bibby*, 49.
— Address to the Department of Anthropology of the British Association, Sheffield, 235.
— Presidential Address, 443.
— 289, 301, 368, 369, 406.

V.

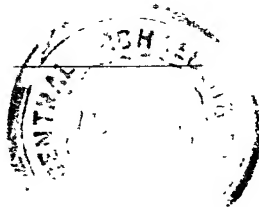
- Vambéry, Prof. Arminius, the Turcomans between the Caspian and Merv, 337.

W.

- Wake, C. Staniland, the Primitive Human Family, 3.
Walhouse, M. J., Rag-bushes, 97.
— 384, 405.
Warfare, Savage and Civilized, 359.
Westropp, Hodder M., Notes on Fetishism, 145, 304.
Wolf-reared children, 465.
Wylie, A., the South Western Barbarians and Chaou-seen, 55.

Y.

- Yen Ts'oo, Memoir of, 87.
Yule, Colonel H., Analogies of Manners between the Indo-Chinese Races and the Races of the Indian Archipelago, 290, 303.



"A book that is shut is but a block"

CENTRAL ARCHAEOLOGICAL LIBRARY

GOVT. OF INDIA
Department of Archaeology
NEW DELHI.

Please help us to keep the book
clean and moving.